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SEED WHEAT.

The other day we (the editors and a visitor) had a little "talk" in the sanctum about Seed Wheat, suggested by an article of Mr. Muir, and the following were the conclusions we came to, corroborated by mutual experience:

Last (or previous) year's growth of seed, is better than new wheat, or that grown this year. According to our visitor, he had sown both old and new seed of the same variety, on very similar lands and at the same time. The product of the old wheat, of the previous year, matured several days sooner and averaged seven bushels more per acre than that of the new wheat.

But aside from the rules given in Mr. Muir's article, there are other reasons why this particular year the old seed should be preferred (we believe there is no limit to the vitality of wheat)—the frequent rains of this season have caused the chit to swell and shrink several times—if not actually sprout. Now we are well aware that wheat will sprout and dry up six or seven times, or so long as the spirit material is not exhausted; but this season there is (at the chit end) in much of the wheat, a discoloration, which shows that the vitality has been impaired—and though such grain may grow, it cannot put forth the required vigor to produce a very healthy plant, nor yield an abundant increase.

We call attention to this matter thus early, that our readers may know the value of old wheat, and if possible secure such seed. Let no miller nor wheat buyer have it—even at 50 cents per bushel above market value—it is worth more to you.

One other consideration must be understood: Seed grain is often affected by heating in the bin. Sow no seed that has been in large bulk, even if not mouldy or heated; vitality may be and generally is more or less impaired when kept in large bulk, and more seed will be a necessity.

While upon this subject, we again reiterate what has frequently been stated—that sowing with a drill is a great saving of seed, besides being more uniform and easier regulated as to quantity. Three-fourths to one bushel per acre is plenty. Had we ever doubted the fact, this year's experience would have given our doubts to the winds.

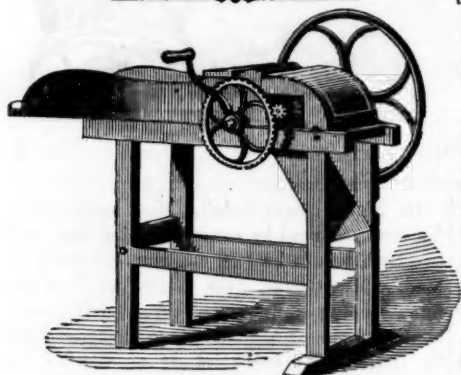
Dr. Martin, near Sedalia, Mo., had a splendid crop produced by sowing one hundred and two bushels of wheat on one hundred acres of land. Mr. Carter, near Lexington, had the finest crop we ever saw, with three-fourths bushel of seed per acre. Names and places might be indefinitely multiplied, if necessary—let these suffice, our own eyes having seen the crops referred to.

It is not the placing of the seed deep in the soil that protects the tender plant, but the placing it at the bottom of a minute furrow made by the drill, where, in fact, the seed is covered only one-and-a-half or two inches deep. But being placed at the bottom of the furrow, the frost does not so easily heave it out and the roots are protected. Again, the rows in drill seeding being six or eight inches apart, the plants have ample room to tiller and spread.—We would like to see the drill universally adopted, and feel certain that one thorough trial will convince the most skeptical of its importance as a labor and seed saving implement.

Foul Seed—No farmer is pardonable in sowing foul seed, chaff or cockle, with his wheat; it is a bad practice, and cannot be too often and too severely condemned. It makes us feel bad at any time to see quite a quantity of chaff or cheat in a first crop on new land, or on any other land or crop, and also to see large stools of rye, which must be considered foul seed in winter wheat. We believe this chaff and rye will depreciate the wheat at least ten cents per bushel, which on six hundred bushels would be sixty dollars. A half day's work would have saved the money. But this is not all: chaff and rye ripen sooner than wheat, therefore much of it will shell out and appear again in the next crop, and depreciate that in like manner. No excuse that we can think of, will excuse or palliate the practice.

HORSE-NETTLE (*Solanum Carolinense*).—In our rambles through the length and breadth of the land, we have frequently found by the road-side and in the fields, the Horse Nettle, and we must say that we are very sorry to see it, but more so to see so little concern about it on the part of the farmers. It is almost as bad as the Canada Thistle, and, unless speedily checked,

will possess the land. No man, certainly no farmer, in his right mind would ever allow it to grow and mature seed. If you saw a rattle-snake or a mad dog, your first impulse would be to kill it, and that would be right—you would never take into consideration whether the place where you met it was your own or your neighbor's. Now, the Canada Thistle and Horse Nettle are, to the farmer, the rattle-snake and the mad dog of vegetation. Wage against them a war of extermination—and do it at once. That is our advice.



Burdick's National Feed Cutter.

The above cut represents a machine which is creating considerable interest among farmers and stock dealers. We had heard it spoken of so frequently that we determined to give it a careful examination, to ascertain if it really possessed the merits which so many have accorded to it. For the purpose of testing its durability and capacity, we fed large numbers of boards and sticks into one of the smaller machines, and were surprised at its immense power, which cannot be appreciated until tried. We cut very fine, soft fibres and paper and heavy sticks, with equal facility and with little effort, which was satisfactory evidence that it would cut ordinary stalks with perfect freedom. We observed simple devices for giving various lengths of cut, for feeding large or small quantities, for preventing accident to the operator, and to avoid the sudden check of motion in case a solid substance should be run into the knife, also other valuable improvements.

We have always recommended the use of cutting boxes as causing a great saving in feed and labor, but have never seen anything which so fully realized our ideal of a perfect machine as this. We found them at the agricultural warehouse of the General Agents, Semple, Birge & Co., 13 South Main Street, St. Louis.

How to Raise Clover Seed.

Some of our readers have asked several questions about raising and threshing clover seed. We will try and answer all the questions propounded.

The seed of the medium-sized Red clover abounds most in the second crop, or rowen; but in order to have it fill well, and have ample time to mature, the first cutting should not be later than the middle of June. The second, or seed crop, is left on the haulm until all the heads are turned brown and show a ripeness; when these are examined, the seeds will be found ripe and plump. Then it should be cut with a

low-running, or, rather, low-cutting reaper, and bunched—in which condition it may be left until dry and stiff; it is then stacked and threshed out.

In the East, it is the practice, in some sections, to allow cows to pasture the clover field intended for seed until about the 15th of June—pasturing very close; then the droppings are well knocked to pieces and the clover allowed to grow until fully ripe. This practice is said to produce the most seed—but better when the land is enriched by a good top-dressing of compost and plaster. Six bushels per acre is considered a good crop—we believe eight are sometimes obtained. The trouble is, not so much in raising, as in getting the seed or hulling it.

The Mammoth or Grape-vine clover matures the most seed in the first crop, which is always best for hay, also. This seed will bring at least \$2 more per bushel. We do not indorse the raising of this variety as profitable in the West, but shall be very glad to learn from any one who has more experience with it than the writer has.

Now as to the profits from the raising of clover seed: unless a whole neighborhood combine to raise clover for seed, and employ the same huller, no single farmer is warranted by any of the clover fields we have seen, or of which we have heard of as existing in Missouri, in getting a clover hulling machine, which will cost from \$400 to \$500, and of course can be used only a very fraction of time each year. Mr. Dan. Etnyre, a number one Maryland farmer, had over five bushels of seed out of about eighty (one season's crop) cut up so badly by the machine, that not a kernel of it would grow if sown. Seed was not as high then as now, but sufficiently so to be worth \$30 for the lot spoiled. We do not remember the exact charge per bushel for threshing, besides boarding eight hands and the same number of horses; but we do remember that the charges were exorbitant. We mention this as an incident, showing the losses attending the raising of clover seed. Mr. E. raises clover seed every year, and expressly for sale at that, but has never felt willing or anxious to purchase a huller for his own use.

There is, however, no reason why farmers should not raise their own seed. When raised, it should be placed under cover and kept dry; then, in late winter, it may be threshed with a flail and sown in the chaff—a very good way, and one that insures certain germination and prevents too thick seeding—two very important points.

We agree with our correspondents that Missouri can and ought to raise her own clover seed, or any other seed that may be produced or wanted in the State. If considerable clover is raised in any one neighborhood, it will not be long before some knowing one will introduce a clover huller. There may be many in use in the State. If this reaches the eye of any such we hope he will report to us his name, locality and some of his operations. For the good of the farm lands in the State, clover should be more generally introduced.

Western clover and Timothy seed (unmixed

of course), is higher priced in the East than that which is raised there, from the fact that it is freer from foul seed, especially that of the Canada Thistle.

We hope we have answered our correspondents' points; if not, we shall be glad to hear from them again.

ENTOMOLOGICAL.

Inquiries Answered.

The following questions have been kindly answered by our State Entomologist, C. V. Riley, Esq., 2130 Clark Ave., St. Louis.

POLLEN MASSES ON LEGS OF BEES.

Col. Colman: There is something the matter with my bees. I herewith inclose you the heads and legs of some of them, on which you will find a small egg-like substance, resembling the eggs of an insect known as the Nit Fly. It appears to be a great annoyance to the bees. Many of them are unable to climb up into the hive, their feet being covered with nits. I desire light on the subject—can you or some of your readers give it to me. F. R. G., Bottsville, Mo.

The egg-like masses, attached to the legs of the bees sent, are the pollen masses of some species of *Asclepias* or Milk-weed. By referring to Gray's Manual of Botany, you will find the structure of the flowers described on page 351; and by referring to his Systematic and Structural Botany, you will see it figured on page 459. These pollen masses evidently adhere to the spines of the legs by a viscid substance at their base. I think they are injurious to the bees, and in that event the *Asclepias* should not be encouraged by the apiarian. The same masses are sometimes found adhering to certain wasps.

STRANGE MOTH.

Mr. N. J. Colman: I send you a strange butterfly. Please tell me its name—and whether it is injurious or not. W. H., Leavenworth, Kan.

The moth is known by the name of *Epantheria scribonia*, Hubner. It is too rare to be considered injurious.

GRAPE VINE INSECT.

Mr. Colman: I send you an insect that is very injurious to the grape vine. It made its appearance here about the 20th of May, in large swarms. They alight on the leaves by the thousand, and eat out the last drop of life in them. They do this on the Miner's Seedling and Hartford-Concord and Norton all right. The insect is a very small fly, but it makes bad work on the vine. The large bug that you will find among them, is death to all leaf folders, and is a friend to the grape grower by what I see of his works. I send you a leaf they worked on somewhat. If I were to send one of the leaves they had worked on badly, it would all break up, so that you could see nothing of their work. G. W. L., Pevely, Mo.

The insect was entirely devoured when the package came to hand, so that it was impossible to determine its character. Within the box, however, there was the pupa of the Spined Soldier bug, (*Arma spinosa*, Dallas,) and the larva of some Lace-wing fly (*Chrysopa*), both of which are cannibal insects, and had evidently devoured the true culprit, while being transported by Uncle Sam.

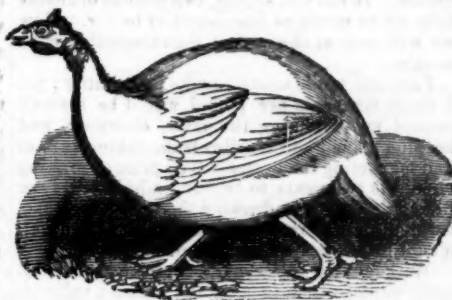
LARGE ARRIVAL OF CATTLE.—The trains on the Pacific road yesterday brought in over one thousand head of cattle. The stock was principally of Indian and Texas origin, and were classed as grass cattle, excepting a lot of 229 head owned by A. S. Graves, of Saline county. These were most of them corn-fed, and in tolerably fair order for the Eastern market, where they will go this evening or to-morrow.—[St. Louis Sales.

THE GUINEA FOWL.

COL. COLMAN: I send you a few lines on the subject of raising the Guinea fowl. I have met with but few persons who appear to appreciate it as a dainty for table use; and fewer still, who know much about raising it.—Believing, as I do, from observation, that the Grouse or Prairie Chicken is soon to become extinct, I think it probable that the Guinea fowl is to become its substitute. They are evidently of similar, if not the same genus. Their dispositions, habits, tastes, and the color and quality of their flesh, is scarcely distinguishable one from the other; and if there be a difference in superiority of flavor, I think the Guinea fowl has it. I might extend the parallel of comparison somewhat by saying, that I have caught and handled many little Prairie Chickens, and raised numerous flocks of Guinea fowls.

When very young, the Prairie Chicken is yellow, beautifully spotted with black, and has a pale yellow colored leg. The young Guinea fowl is of a rich mahogany-brown color, striped down the back with dark lines, and has a reddish flesh-colored leg. They are truly beautiful, and of similar disposition and habits, except that the Guinea fowl, like the Turkey, appears to be more clannish. The careful observer will not fail to detect the nest where the female lays her eggs, by the cackling of the male, who usually occupies some high and conspicuous position on a fence, a tree, an out-house, or something of the kind, until his lady-love, having laid her eggs, creeps quietly through the tall grass to where he is. I have never known the female to cackle after laying her eggs, unless disturbed in some way.

In taking eggs from the nest, I have been governed by the number in it when discovered. If but two or three, I leave two—never less; if more, I leave a proportionate number, and am careful not to pull or trample, or tangle, or in any way disturb the vegetable growth around the nest, but aim to leave it as nearly in its original and undisturbed condition as possible. If she detects intrusion about the nest, she forthwith abandons it. In consequence of lay-



ing a large number of eggs, often from thirty to eighty, the hen commences sitting late, and occupying three weeks and three days in incubation, it throws the hatching of the little ones forwards towards the fall; and as the Guinea fowl is a great rambler, she is likely to stir about in the dew too early in the morning with her brood, so that they become chilled, and, being very delicate, die of cold and wet. Hence, I set their eggs under a good, quiet dung-hill hen, and, when hatched out, build a four-square pen, by setting as many plank on edge in a good, dry place, inclosing as much as possible. I then place a good tight coop, made in the shape of an army tent inside of this inclosure, and put the hen and Guineas in the coop, shutting the door and keeping all dark within. Feed them and give them water inside the coop for two days, during which time their strange mother learns to appreciate her novel brood, and they, in turn, get to understand her cluck and call, and run to find protection and shelter under her wings. The inclosure around the coop is intended to furnish them a supply of grass, of which they are very fond, and also to keep them from straying away from the hen, which, owing to their clannishness, they are very apt to do. The inclosure must be kept very tight, and other fowls must be kept out of it. Young Guineas are very gentle and will learn to follow a man, a dog, a cat, or anything that moves.

The Weather and Crops.

[Written for Colman's Rural World.]
ODDS AND ENDS—No. 7.

WHEAT HARVEST is about wound up in this region, that is, so far as cutting is concerned. But very little is yet stacked or housed. Farmers were compelled to go to fighting the weeds in the corn, potatoes, &c., before stacking their wheat. And such a harvest as this has been: alternate rain and sunshine—had to work between showers, greatly prolonging the harvest, and still it rains. The wheat is undoubtedly injured in its market value on an average of from five to ten per cent, but intrinsically not so much, probably not over half that amount. But speculators and millers know very well how to take the advantage when it comes into the samplepan on 'Change. A little bleach does not really injure it. I claim to know what I am talking about on this subject, being myself a miller and having ground thousands of bushels of wheat of all possible grades. It was injured more before it was out than since, where it was well shocked. The ripe grain swelled and the chaff became discolored and of a mouldy appearance while it was yet standing, and in this case one end of the grain appears a little blighted. How much more it may yet be injured—as the wet weather at this writing (July 12th) still continues—no mortal can tell. Harvest wages \$2 per day—same as last year—which is certainly exorbitant when we consider that the price of wheat is not half as much as last year. But if we get good hands at that, it would not be so bad. Not one in ten is able to make what I call a full hand: such as I was used to seeing in my younger days in a wheat growing country, and before reapers were invented. Out of ten who pretend to be cradlers, perhaps you may find one that is worthy the name; of binders, perhaps one in twenty or thirty; and of shockers, not one in fifty. And as a general rule, the poorer the hand the larger the wages demanded. The most independent characters we have are the common laborers. They can work three days in the week at present prices, and lay around the grocery or some other loafing-place

the other three, and abuse the farmer because he wants an honest day's work done when he pays dearly for it. There are laborers enough in the country to do all the labor required: that is, I mean there are enough that ought to be laborers; but from about one-half to three-fourths of them are worthless scums that are really not worth their board, yet these are they that demand the highest wages, and if they promise you their poor services at a dear rate you cannot rely upon them from one day to the next, and ten to one they will quit and leave you right in the pinch of the game.—I have been speaking mostly in reference to "free white labor;" the negroes are now not much better. They are imitative beings, and seem naturally inclined to pattern after their white brethren. You may possibly get them to work all the week until Friday night, but not on Saturday. It is against the negro's principles to work on Saturday. You cannot prevail on him to do so nee pree, nee pretio. But I must say for them that while they do work, they perform more faithfully than the whites, always provided, you are with them all the while.

Now, friend Colman, you will probably say this is rather lugubrious stuff for your cheerful paper. Well, it is just the way I feel, and I think you would feel so too, if not more so, if you had been annoyed and befuddled and deceived by such a set of worthless scamps as I have been for the last two or three years. I don't know how it is with you, but I can't write cheerfully when I don't feel so. But then I suppose I ought to know that editors belong to a class of literary cosmopolitans who can adapt themselves to all phases of all subjects. When I commenced this article I did not intend to run it in this strain, but somehow—I suppose naturally—I fell into it. The fact is, I am worked down and not in a condition fit to write on any subject, but I do know that I am not alone of all farmers whose views and feelings correspond with the above, however unpopular it may be to express them. Let us work and hope for a better state of things, or
TRY.
July 12.

FROM JEFFERSON CO., MO.—Col. Colman: The heavy rains of last week, and the week before, visited

the wheat fields of the farmers in the Platin Valley rather unceremoniously, sweeping off the shocked wheat, and carrying it, together with the rails, down into the Platin river, and stacking it up where the drift had formed a sufficient barrier to prevent its being carried away; every successive shower bringing a fresh supply, until the stack was wonderful to behold. One would really have thought the elements had gone into the grain speculating business in emulation of the enterprising citizens of St. Louis. Whether any of the wheat thus rudely subjected to watery elements was saved, your correspondent is unable to say.

July 12.

SYLVANIA.

FROM MACOUPIN CO., ILL.—Col. N. J. Colman: Within the last week we have had several very heavy rains, which have put the farmers back very much in harvesting their wheat. South of here the wheat is all cut, but north of Shipman there are but few farmers who have done cutting—the ground is so wet and soft, it is impossible to get into the field with the reaper. It is the same in Montgomery county, joining north-east of this county. From what I can learn, there will be an immense quantity of wheat lost from being over-ripe before it can be cut, and spoiled by the rains.

Can you tell me what was the matter with one of my brood sows: a few evening's ago I found her very sick, frothing very bad at the mouth, and holding her head down to the ground. She refused to eat anything. I went to the coal house, and got a quart or two of fine lumps of stone coal and gave it to her; she ate it greedily. The next morning she was as well as ever. I gave stone coal last year to a sick hog, which had the desired effect. My hogs are running on a pasture of white and red clover and Timothy. I give them salt once a week on the ground, which they lick up the same as my other stock. G.
July 11th.

METEOROLOGICAL.—Prof. B. F. Mudge, of the Kansas Agricultural College, makes the following report for the month of June:

Average of the Thermometer, taken three times a day, 66.4
Average height of Barometer, inches, 28.82
Total amount of rain, inches, 8.65
The amount of rain during the late flood, June 24-26, was 5.68 inches—more than ever noted here in the same time. Wildcat Creek was about five feet higher than it has been since the settlement of the country.
—[Kansas Farmer.]

The Apiary.

[Written for Colman's Rural World.]
BEE CULTURE.

"Where there's a will, there's a way."

I have, ever since I was sixteen years old, had a great desire to handle bees—not only because I thought it was a beautiful and interesting occupation, but also because I knew it to be a very remunerative one. But I had not the opportunity of informing myself in the least until last winter, when I became a subscriber to the *Rural World*, and in the very first number saw an answer to "Bee," who wanted to know where he could get something to read on Bee culture—so I sent immediately and got "King's Text Book," as recommended to him; read it thoroughly; sent for a sample American beehive, which I consider much the best (I have Langstroth's and have seen several others); bought twenty-five stands—which was the hardest to do of anything I have undertaken; and commenced the business on scientific principles, following the directions of the "Text Book," although I have read carefully Langstroth's and Quinby's works.

Now for the practice. Although there is not a moveable-comb hive, except my own (that I know of), in Callaway County, and any amount of superstition and ignorance on the bee question, everybody trying to discourage me in my undertaking—yet I was determined to "follow

the books." So, at the opening of spring, I strengthened all my weak stocks, by changing place with the strong ones. Preferring rather to get as large increase of stock as possible, deferred transferring until after swarming season. Ordered two stands of Italians; raised a number of queens; introduced some; but not being satisfied with their purity, have sent to Mrs. Tupper for several queens, as I will raise none but the purest.

The season, so far, has been very fine, and now I have sixty strong stocks from my twenty-five. Have transferred all into the American hive. I challenge any bee raiser in America to excel me in the future. I know "where there's a will, there's a way."

I expect to purchase stocks, and introduce Italian queens into them, so that next spring I hope to have one hundred pure Italian stocks to commence with.

In transferring, I saved about twenty-five pounds of strained honey to the stand. One stand cost me \$4.50. I saved three good swarms from it, and \$10 worth of honey.

I have never failed in anything I have undertaken to do with bees, although I never saw a swarm hived until I did it myself this summer. Many think that it is so easy a way to make a living that any one can attend to bees: but it is not so! A man has to have a large amount of patience, fortitude and perseverance to succeed well. Provide a good house for bees and they will work; use caution, and never show fight in handling them, and they will not sting you.

J. W. S., June 26th.

[We shall be glad to hear from you again. Any practical facts in relation to bees are interesting to many of our bee-keeping readers. As to style, the plainer and more direct the language, the better.—Eds. R. W.]

The Dairy.

BUTTER AGAINST CHEESE.

Perhaps there is no other question connected with dairying in the West, which so much vexes the minds of the dairy people, as which is most profitable to the producer—butter, or cheese?

Each side of the question has many able advocates who discourse long and loudly, each in favor of their theory and practice; and yet, how many butter makers in this vicinity can do anything better than guess how much milk it takes for a pound of butter? How much better are cheese makers, only as they learn from factory reports? I do not wish to discuss the merits or demerits of either side of the question.

I will, with your leave, present a few facts well known to all dairymen who are familiar with both sides of the question.

The heat of summer causes a great variation in the yield of cheese, as well as butter. Milk in July gives about nine pounds of cured cheese to one hundred pounds of milk. Milk in October usually gives twelve to thirteen pounds cured cheese, to one hundred pounds of milk, making, as you see, as marked a difference as in butter making.

The same skill in working with suitable fixtures will give two and three-fourths pounds of cheese to one pound of butter, from a given quantity of milk; but how many have suitable fixtures for butter making? Neither are all conveniently located to cheese factories. The price of each article has much to do with the question. In the summer there is usually but little difference per pound between cheese and

butter. In fall and spring, two pounds of cheese sells for as much as one pound of butter. Now we will look at the cost of manufacturing each article.

Farmers' wives usually make their butter; yet I think six cents per pound would be a small reward for skimming the milk, churning, and keeping pans and utensils clean, taking care of and marketing the butter. The price of making cheese is two cents to two-and-a-half cents per pound; the cost of drawing the milk to the factory, and drawing home the whey, is from half a cent to one cent per pound of cheese.

With cheese at twenty cents, and butter at forty cents, which is near the market value of each, we will see how the account stands: two and three-fourth pounds of cheese at twenty cents per pound, gives fifty-five cents; making and drawing milk, three cents per pound, gives eight and one-fourth cents; net value of milk, forty-six and three-fourth cents. The same amount of milk would make one pound of butter worth thirty-eight to forty cents per pound; cost of making and marketing, six cents; leaving thirty-two or thirty-four cents for the milk, showing a deficiency or loss of twelve to fifteen cents on each pound of butter. Will the butter man be any better off next summer, when he sells his butter for twenty-five cents per pound, and pays twenty cents per pound for his cheese?

Now we come to the question of all questions with some farmers—why compared with sour milk as food for the porkers and calves.

Whey should not be as good food for either as milk, but I am convinced that hogs and calves can be profitably raised on whey, and that whey is worth much more for feed for either hogs or calves, than most farmers consider it. I have fattened and sold hogs without any other food for several months before selling. A very small daily allowance of grain with the whey is perhaps profitably used.

As I only aim at presenting facts, I will say that each must decide for himself whether he wishes the loss and labor of butter-making, or will try cheese-making, when he can conveniently.—D. G. Eldridge, in *Aurora Beacon*.

REMARKS.—The question of convenience plays a great part in this matter. Farmers are not all located near a cheese factory. Suppose every one should come to this conclusion: "Cheese is most profitable and pays best, therefore I will make cheese." Would it sell at present prices? Would the proportion of prices, as between butter and cheese, be as at present? We think not—cheese has often been sold for from eight to ten cents a pound, and would be again.

Americans differ in habit from Englishmen. People do look upon cheese as a luxury that can be done without, if necessary; but they would think matters had come to a pretty pass, if obliged to go without butter on their bread—if either is to be done without, it is cheese.

Another point is this: Good butter may be made where there are only three or four cows in the dairy, and where it would be very difficult to make good merchantable cheese, which has to be of a certain size to sell well.

Most of the points, however, are well taken by Mr. Eldridge.

Milk Dairies Near Cities.

EDS. RURAL WORLD: The writer of the article on "Dairies near St. Louis," says that he knows that it costs something to keep a cow. So it does. In keeping one cow and a lot of dairy cows, experience shows a difference. A family that loves to have one good cow, will try to purchase the best they can get, and can and will attend to her well. I have done the same

in St. Louis, but did not find any cow that would give 16 quarts of milk all the year round, and it is not easy to get always the best milkers when you have to keep from 30 to 50 all the time. And as to making a profit at 25 cents per gallon off of pure milk, when you have to buy the cows and the feed for the same; pay for help, hauling to R. R. Depot, freight, and send it to the city to a retailer, and pay him a commission of say 6 cents per gallon—what will that leave to the proprietor of a dairy?

I think the writer of "Remarks" is not a practical milk dairyman, for I believe he would not get rich very fast, even at 40 cents per gallon for pure milk, after deducting all expenses and losses. I, and many others probably, would like to see a true expense account, to let us know whether the farmers want to get rich too fast, as he remarked in his last. I believe that to come down to the 25 cents per gallon figure, we would have to resort to the well-known practice of skimming and watering. I have had some little experience, and should be glad to find a cheaper way to produce good and pure milk, so as to enable me to deliver it to customers at their doors for 25 cents per gallon, and make say 10 per cent. profit.

MERAMEC VALLEY.

REMARKS.—No one expects that milk-men will have to buy all the feed they give to their cows. Cows, to do well and be profitable, must have natural pastures, where land is not above \$30 or \$35 per acre. The interest on the cost of two acres, which ought to pasture a cow nine months in the year, at ten per cent. would be only \$7. Land can be had for less, and yet be convenient to the railroads—and that is just the point we desire to make. Not what pure milk will cost in the city limits, nor in the suburbs—but 30, 40 or 50 miles away.

We think *Meramec Valley* may be in the habit, "the old and well-known practice" of watering and skimming milk in common with many others; but we will bet a large apple that his milk-wagon is not labelled, *Watered and Skimmed Milk*, nor can we find any one that is in the whole city.

As to a true expense account, *Meramec Valley* is the man to furnish it!

We never, knowingly, design to take a stand against any farming interest, but we must be allowed to deal fairly, even in our argument. No one is compelled to keep a milk dairy if he can do better at anything else. What we want is, that if a man pretends to furnish a pure article of any kind, he shall do so, and not sail under false colors.

Our object all the time has been, and is now, to draw out all the information about dairies possible. Come! let us see your expense account, friend *Meramec Valley*.

THE MILCH COWS.—A prize, valued at \$500, is offered by the managers of the St. Louis Fair for the best milch cow, to be tested on the grounds for three days during the fair week. This prize will be of much value to the one who gains it, and it will be worth a great deal to stock raisers to know where to find the best milking qualities, whether in one particular breed or a mixture of different breeds. There is another question open to settlement, and it is to be hoped that this association or some other will do what is needed to prove what breed of hogs will make the most flesh on the least food.

Horse Department.

HORSE GOSSIP.

The best place to teach a horse to work is in the hay field—you want nothing but a collar, hames and rope. Make your colt familiar with the rigging, and get him used to the rope about his legs. Let him know that it will not hurt him, and then there is no danger of his kicking at it. Horses never kick at the gear from fun—they have no disposition in that way. They kick simply for defense, believing that what they kick at will hurt them. It is fear which makes them kick. Quiet their fears, and their heels will not fly up. Place the rope on their back, loin and other parts of the body; let them see it, smell of it, and know that it is harmless. By degrees bring it up between their hind legs, until you can hold the end of it from a distance behind, and pull it up above the hocks and against the belly. An hour's turn ought to be sufficient to gentle the wildest and most ticklish young horse. Some can be gentled to any kind of rigging in five minutes, and when that is done, hitch up. I never found any sort of vehicle half so good to hitch to as a cock of hay. It won't run down hill against your horse, and then the draft is more regular than wheels. You can commence with a very light load, and if you understand the nature and disposition of your horse, you can, in one afternoon, train him to pull as true and faithful as an old stager. As soon as the colt learns that he can move the object that he is hitched to, there will be no difficulty in getting him to try. Horses balk because they think they are fast—and not because they do not wish to pull. If you want a horse to pull under any circumstances, you must teach him to believe that nothing can hold him—do this, and he will do the pulling. When he learns to draw a small bunch of hay, throw on a little more and let him pull it, always speaking to him when you wish him to move, and calling when you want him to halt. Be sure when you speak for him to stop, that you have him in your power, and force him to halt. He will then learn to stop when you say so, believing the word stops him. A horse can't think of two things at a time, and if you will force him to stop when you speak, he will soon believe that the word stops him and will be obedient to it.

Give me the hay meadow to break and train a young horse. I won't lose more than one or two hours of haying time, and will gain a great deal by gentling my colt in a way that he could not possibly be hurt. If he should kick back, he does not strike his legs and cripple himself against a wagon. No jockey wagon for me—no narrow, contracted stocks where horses are tied up by the head all night—no plank floors on which their feet can slip when an effort is made to lie down or get up. None of these for me. But give me the open field for a training ground.

A fourteen-foot room, with a dirt-floor, dug up two feet deep, and covered twelve inches with saw-dust, as a resting place in bad weather, and a clean grass lot forever and ever, in place of a horse doctor.

To tie a horse on a narrow plank floor, all night, is like putting an obstreperous convict

in a cell and chaining him to it—it is a first-rate, but cruel, punishment. In the city, where space is worth more than a horse, economy calls for the stable-prison-cell—but, in the country, where all out-doors is as cheap as dirt, let the poor work horses have the freedom needed for their rest and comfort. GOSSIPER.

Letter from "Hoss Man."

MASTER EDITOR—*Der Sir*: I see in your valuable paper, an article from Kape Gerido on hoss gossip, and I being somewhat of a hoss man, I will give you a few hints of my plan of doctoring. You see, when the hoss gets sick—if the colic, he swell up. You can put your ear to his side, and if you hear his in sides makin an awful fuss, colick sure there. Get 1½ pint whisky, and drink some little yourself—but not much; and 2 big spoon of black pepper and 1 pint worter, and pore all down, and then get a fence raille and 2 men and rub his belly backwads for a long time, and he will be better after the rubbing. But if no better then, gin him 4 oz. Laudlum, 4 oz. spr. niter, 4 oz. asafitoty, all put in 1 pint warm worter, and pore all down, and blanket him well. But if it is Boots, gin sweet milk and sugar about 1 quart, and then 1 quart of strong sage tea, and if he dont get better, gin him a dose of green persimmons. I use that—sure cure.

Crave Kar, July 10, '69.

MANAGEMENT OF COLTS.—We have always found that nothing was gained by starving the mother or stinting the colt. It is the most important period in the life of the horse, and if from false economy his growth is arrested, his puny form and want of endurance will ever afterward testify to the error that has been committed. From the time the colt is old enough to crack corn or oats, the mother should be fed in a trough so situated that the colt can partake with her.

Yearling colts should be fed a little oats in the sheaf and good hay daily, to keep them in vigor and thriving. They should be fed sufficiently to make a constant daily growth. They should not be fattened like hogs—but have enough food and of the right kind to make bone and muscle, and keep up the health and strength of the system. They should not be kept in close, warm stables, but should have plenty of fresh air. They also need daily exercise, and should be turned out several hours each day to have a good run. Plenty of food, plenty of pure air, comfortable and well-ventilated stables, and plenty of healthful exercise, will make good colts, which, in proper time, will become good serviceable horses.—*Ex.*

REMEDY FOR SCOURS IN COLTS.—A correspondent of the Iowa Homestead says: "Colt raisers don't dose your young colts to death with strong medicine, when they take the scours. Just take a string (buckskin or soft leather is the best) and cord the tail as close up as you can conveniently; that will give relief in half an hour and cure in from six to twelve hours. I have tried the same on two old horses, and it cured them in a few hours, and I have been told the same remedy is as good for calves, but have never tried it myself. If any one has tried it, let them report the effect. Let us try to do away with dosing stock with strong medicine as much as we can, when something simple will do just as well."

HORSE FAIR AT LEAVENWORTH.—The fine trotting mare, Tackey, owned by R. S. Carr, Esq., of St. Louis, made a visit to the above place, and attended the celebration of the Fourth of July, close to the city, in company with many other fine horses. She received the best prize (\$400) for trotters.

Longstreet, owned by Col. O'Fallon, was exhibited as a fine stallion, and received \$50.

Newry, own brother to Norfolk, won the \$100 prize, as the finest thoroughbred stallion.

Billy Boyce, Wyandotte Chief and Anna Walker, gave a pacing entertainment to the crowd, who decided in favor of the Chief, who beat the great goer in the second and third heats.—[St. Louis Sales.

Answers to Correspondents.

From Fayette, Ills.

COL. N. J. COLMAN.—Enclosed please find \$1, for which please send me your valuable "Rural World" to the end of the year; a paper which deserves the attention and support of every Missourian and Southern Illinoisian, more especially, as it contains subject matter adapted to our own climate and interest. It is a welcome visitor to this place, and its articles generally, are read with much interest.

The wheat crop is better than was expected after so much hail and rain, though much will be lost owing to the farmers not being able to cut in time. The corn crop here will be a short one. There will be a scarcity of fruit. It is still cloudy and looks like rain.

Fayette is situated in the extreme east end of Greene county, 16 miles east of Carrollton the county seat, and 18 miles west of Carlinville the county seat of Macoupin; it is 4½ miles from the Rockport, Alton and St. Louis Railroad.

I desire this fall to set out an acre of land in hardy fruit trees, well adapted to this climate; will you be so kind as to inform me through the columns of the "World," the number that should be set out; how far apart; the best kinds, and number of each kind of the following varieties, suitable for family and market use, consisting of apples, pears, peaches, cherries and quinces, mostly of the former. Will some of your lady correspondents give us a good recipe for "black-berry wine," and oblige

R. G. R.

REMARKS.—In reply to our friend, we can only say that, at the distance of fifteen feet apart, alternating peach, plum and apple, so as to leave the apple trees thirty feet apart each way, it will require 193 trees per acre. Of varieties, we would have but few of winter apples, only four or six kinds. Small fruits may be cultivated to best advantage in rows.

The demand of our correspondent in full would require us to write a book, which we cannot at present do. We have "Thomas" and "Warder" and "Bridge-man" and several other good works on the subject, and our advice to our friend is to obtain one or the other of these. It will prove a great help for reference.

Not quite a year ago, we gave a most complete list of peaches—not over six weeks ago a complete list of cherries. Apples and pears have already, and will, during the exhibitions and fairs this fall, receive all merited attention; because we shall leave no opportunity unimproved that will give our readers information of a local character. So, if our correspondent will but attentively read the "Rural World," as we believe he does, he may even from that humble source derive all the information he seeks, though it be not given in a bulk in answer to his interrogatories.

We shall always be glad to hear from R. G. R. on local matters, crop items, prices, &c.

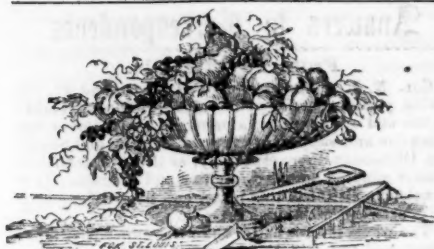
MR. NORMAN J. COLMAN.—Although this is an exceedingly busy time—cutting grain between showers, in mud and slush after as two heavy rains as ever fell from the clouds, (afternoon of July 1st, and on the morning of the 2d,)—before I let the matter slip my memory, I wish to enquire the cause of the bark dying on the body or trunk of apple trees in spots, some on every point of the compass, the size of your hand more or less, very thin, as paper; and if peeled off leaves the wood exposed, damp and mouldy, with fresh bark apparently forming on the edges to cover it over again; but the whole (fresh bark and all) covered with thin (as it were scalded) bark—in some instances thick and tough like leather. The trees are trimmed low and limbs within two feet of the ground. If I had not found some on the north and east side, I would have attributed it to sun-scald. Notwithstanding the extreme wet time we have had for harvesting, I believe and hope most of the grain will be saved. About five more days will finish all cutting. It is the heaviest and best crop ever raised in this section of country. Corn coming out finely. J. P. H. Mayview, Mo., July 3.

ANSWER: The description evidently refers to injuries resulting from hail, or something of the kind. While these effects during the past season were very obvious in the breaking of the bark, we have found the bark so bruised as to destroy its action. Very many of these anomalous cases are traceable to this cause in this vicinity.

COL. COLMAN.—I want to know whether I must cut the runners off my strawberries.

J. A. S.

ANSWER.—This will entirely depend on the object in view in cultivation. If it is fruit alone, cut off the runners. If plants are desired, keep the runners.



HORTICULTURAL.

IN THE ORCHARD

We find much that is pleasing to behold, and many valuable lessons. The very long continued moisture, this season, has induced a remarkable wood-growth, and much can now be done by rubbing off superfluous or misplaced shoots, that, by immediate attention can be removed with but little labor; but, if permitted to remain, will impair the health of the contiguous foliage, and cause a heavy expenditure of labor in winter pruning, without producing as satisfactory results as can now be obtained. Attention, now, to the condition of the bark, so as to ensure its expansion with the layers of new wood, will be found an important item in maintaining the health of the tree.

Numerous inquiries are made as to the cause of so many twigs dying off quite suddenly, causing the trees to present a blighted, unsightly appearance. This affection has been very bad this season. No entirely satisfactory explanation has yet been given; but the most plausible is, that it is the work of an insect—the Apple-twig-borer (*Bostrichus bicaudatus*). While we have not seen decidedly fatal results from this, there is no doubt that it is injurious to the tree to some extent. Keep a sharp look-out for the true Apple-tree-borer (*Saperda bivitata*).

This season has been extremely productive of the "Scab" on the apple. Some varieties bid fair to become perfectly worthless from this cause—as the "Red June," for instance. This is a fungoid growth, and is, without doubt, caused by the abrasion of the skin of the fruit in the very early stages of its development by a caterpillar. The very fine enameled external covering of the skin is removed by the jaws or spines of an insect, and presents an appropriate place for the spores of the fungus, which root, and grow, and absorb, the juice, causing the fruit to crack. We think that a simple remedy will be provided for this—if not some varieties will become perfectly worthless.

In regard to the crop of Apples, and their value, it may be well to note that the crop will be large, but of very little value in market. All the products of the farm are on the decline; money is scarce; the fruit wormy and imperfect, and liable to drop prematurely. The hope of the grower lies in his ability to market only the finest specimens, and use up the bulk by stock, vinegar or distillation. Early attention to this will create the difference in the account between profit and loss.

The Peach crop will be quite scant; its quality fine; and, among varieties, Hale's Early will take the lead for hardiness, and this season has proved quite healthy. Its reputation, thus

far, this season, has not held out as being worthless on account of rotting on the tree.

The Pear promises abundant crops of good fruit, about of average health, and with indications that the radical cause of blight will soon be understood and provided against.

There exists a disease among fruit trees, especially the apple, that exhibits the most distressing indications to the orchardist, viz., the "root-rot." Without any premonition or indication of disease; without any marks of worm or borer—the tree suddenly dies; and when the root is examined, it is found to be decayed in the bark and wood underground, and frequently fungoid growths are exhibited. It is matter for serious inquiry as to the cause and remedy, and we think it quite evident that where the trees are set in clay retentive of moisture, the disease is most distinctly manifested. We have observed precisely the same indications in the case of young trees improperly heeled in during the winter.

In many localities, this disease is assuming an importance that involves the practicability of fruit culture entirely. In fruit culture it can most truly be said, that constant vigilance and unremitting attention, are the only guarantees of success.

ALTON NUTMEG MELON.

The following letter explains itself:

COL. COLMAN: When I subscribed for your paper last winter, you sent me twenty-four seeds of the celebrated Alton Nutmeg Melon, which I planted in very rich cane land early in the spring—the result is, that I have now some of the most delicious melons I ever tasted. I inclose you a few seed from one of them, weighing nine pounds. G. S. Z., Colorado Co., Texas, June 25.

[The season in our vicinity has been most unfavorable; so much cold and wet in the early part of the season, caused much of the seed to rot—still, on the whole, they have given great satisfaction.—Eds. R. W.]

[Written for Colman's Rural World.]

The Mexican Everbearing Strawberry.

Having noticed several communications in your columns, in which the valuable qualities of this berry are denied, and its disseminators are pronounced "rascally impostors," I trust you will give place to a few remarks.

Because the old varieties of the Red Alpine have failed to give satisfaction, we can see no reason for denouncing the class of berries, or why new discoveries might not be made. That a new berry has appeared in this one, we are fully convinced after having repeatedly seen the berry in cultivation during this spring and summer on the grounds of the proprietor at Detroit, and have recently visited the grounds at Dundee, Mich., in the vicinity of which they have been grown for ten years; and from these observations can come to no other conclusion than favorable to the berry.

It shows a most wonderful propensity for reproducing itself as well as producing fruit. We saw and picked ripe fruit from new plants, or runners of plants, set out the 12th of May—while fields that had been planted three and four years were red with fruit, giving as much ripen-

ed fruit as any other variety, and the plants were loaded with fruit in all stages and new stalks filled with bloom.

The berry is of moderate size, of a bright scarlet color, separates from the hull in picking, and has a most delightful fragrance. The berry certainly deserves a place in every collection, and, when once there, we believe would never be discarded. E. D. H.

THE CURRANTS.

COL. N. J. COLMAN: As the Currant season, and a very favorable one, is now over, I desire to say a word in its behalf. I do not write as if I were authority upon the subject, but simply as an amateur, giving clean and high culture in my garden to the following varieties—viz.; White Grape, Black Naples, Red Dutch, Cherry, Victoria and Versailles.

My cultivation is, in early winter, to cut out old stock showing weakness and want of vitality; shortening in the long, straggling growth (say, one-third); in early spring loosening the ground to a depth of not more than three inches, lest I should injure the fine, fibrous roots; keep clean until about the middle of May, when I mulch with a wheel-barrow load of, say, three-fourths rotted saw-dust, of which I have an abundant supply. I find my saw-dust to be a peculiarly suitable dressing, both as a mulch (for which it is very fine) and as a gentle, but sufficiently-stimulating manure; in addition to this, many of my plants are on the north side of an open plank fence, and are partially shaded.

With the above cultivation, it is wonderful what returns the Versailles and Red Dutch will repay your labor. It seems as if more could not find a growing place upon their branches.

I find the Black Naples a shy bearer, and of but little value outside of medical purposes for wine. The Victoria is a tremendous grower; has long and straggling branches, and is a shy bearer. The White Grape a slow grower, medium bearer, and the fruit inferior to the Red Dutch and Versailles. The Cherry, a good grower, but scarcely a medium bearer, and its berries not so large with me as the Versailles. With the Red Dutch, every one is acquainted; with nearly every good quality, it lacks size only.

Of the Versailles, my experience is, that it is the perfection of a currant. Not showing its good qualities until it has age—at least four or five years—then it bears in luxuriance, and of a size, with me, wonderful for currants. Mine have been looked at this season by several old fruit growers, all of whom say they never saw such fine currants before—quite a portion being as large as good Houghton Seedling gooseberries, and the entire product averaging in size with large Marrowfat peas. As evidence of this, I send you a bottle of them preserved in common whisky. It may be that you have seen finer—but I doubt it, until you say you have. I will add that my Versailles were so fine, that saloon keepers were desiring them to flavor drinks, three or four berries answering instead of lemons. H.

Carbolic acid may be deodorized by mixing it in a crystallized form with twice its weight of gum camphor, and adding whitening to the compound. In this form it is said to be valuable both as a disinfectant and as a protection to furs against moths.

FARMS OF NORTH MISSOURI—NO. 1.

THE FARM OF C. H. MANSUR, ESQ., OF CHILLICOTHE.

Agreeably to my promise, and the urgent solicitation of many friends, who have a common interest in the growth and prosperity of our glorious State—I commence my articles describing the farms of our portion of Missouri. The description, in every case, will be true to the letter, as notes are taken on the ground.

The farm of Mr. Mansur is situated seven miles north-west of Chillicothe, Livingston Co. Is composed of 367 acres of land; 90 acres in cultivation; two woods pastures of 140 acres; 25 acres in orchards. The drive from the city is a delightful one to this farm; neat, tidy farms, with fine orchards, tastefully kept grounds around the pleasant farm house, or tidy cottage—meet the eye on every side, until we approach the vicinity of Grand river, four miles out from the city. Here, the gradually undulating landscape rapidly rises to a bold elevation. As we approach the height, to ascend, a most charming panorama is spread out before the enraptured vision. Immediately in the foreground, the river, decked with its mantle of green, rushes rapidly on; before us, but far in the distance, rise hill after hill, gracefully rising higher as they recede from the foreground—all decked with living green. To the left, far down, the eye can wander and mark the course of the river, past homestead and vine-clad hill.

But, we are at the river: crossing by a splendid bridge of one long span thrown across, high above high water mark, supported at either end by solid masonry—we suddenly find ourselves entering the majestic timber lands of Grand river bottoms, where hickory, elm, walnut, oak, pecan, locust, ash, and many other forest trees, seem to vie with one another in reaching heavenward. A mile and a half ride through this forest reminds us of the grand, old, dark retreats of our boyhood, in a far Eastern State; as we, of the "prairie homes" are almost unused to Sylvan shades so dense and gigantic. The next mile and a half is again rolling, and heavily covered with timber; here and there a farm cut out artistically from the forest.

The soil on the elevations is a rich loam, underlaid with a subsoil of reddish clay, and coming next, I believe, sand stone will be found in abundance. The bottom land upon this farm is a deep muck, black and porous. A small stream winds its way through the wooded portions, coming near dwelling, barn and the traveled road, affording a bountiful supply of stock water.

From the dwelling, but a few rods distant, there breaks out four or five most splendid springs of clear, cold water. A spring house, with stone walls and ground floor of large slabs of stone, with a flow of from two to six inches of water over its entire surface, at the will of the owner—reminds me of fresh meats, crisp vegetables and ice cold butter.

The house is a frame one, with ample room; in the usual style of a Missouri farm house, situated on a very commanding hill near the centre of the farm, but upon a public road running through the same. Mr. Brosheer, the father-in-

law of Mr. Mansur, carries on the place. Mr. Mansur, residing in the city of Chillicothe, is a lawyer of marked ability with a large practice in the various courts of North Missouri.

Here we sat down to a bounteous repast—fresh meats, delicious butter, new potatoes (size of large walnuts), cherry pies, and with all the necessities of a well and bountifully supplied table, presided over by ladies who know how to deal out hospitality with no sparing hands.

The meadows present an ever-thrifty growth of Timothy; the wheat standing up well, yet not thick enough upon the ground, will yield about twenty bushels to the acre; oats very large and heavy—thrown down by heavy winds. Corn an even stand, and of good color.

But it is not the grain crop of this farm that particularly interests us; but the glowing treasures of Pomo that claim our attention. Several hundred apple trees in full bearing, from twelve to twenty years of age, present a sight well worth a thousand miles' travel to behold. Loaded, and at this early day (June 19th) bending their branches towards the earth, with beautifully formed fruit. About two hundred Jenecons (Rawles' Janet), bearing from eight to twenty-five bushels to the tree; fifty Ben Davis; many trees of which will produce thirty bushels to the tree—last season produced twenty-six bushels to the tree; Winesap and Fall Wine, very full and colored highly at this early season. Porter is a general favorite; trees full, but not crowded and of large size. A few trees of this and Ben Davis, not over four to five inches in diameter, will have from four to six bushels of apples to the tree. Jonathan, trees full and of large size; Yellow Belleflower, well filled with large fruit. Milam seems to be rather a shy bearer, yet the trees are young and bore a fair crop last season; may do better when older. *Æopos* Spitzenburg, moderately productive; Baldwin fairly filled, but bearing a crop every season of large apples. Late, or Fall Strawberry, bearing large crops every year, giving Mr. Mansur the best satisfaction for a high flavored dessert apple of any ever tasted, yet is too easily bruised to carry to distant market. Golden Russet, showing a fair crop; Romanite doing well; Northern Spy well filled; Pryor's Red only moderately full; Pennsylvania Red Streak, trees young and fruiting well; White Belleflower a shy bearer; Fameuse succeeds well; Talman's Sweeting, productive; early Harvest very productive and of good size; Fall Pippin, trees young, but giving great promise—a tree of this variety, measuring only 2½ inches a foot from the ground, had on it 355 large, perfect apples.

On this farm is an orchard of seedling apple trees, now twenty years of age, bearing every season enormous crops of fruit that is worked up for cider.

Mr. M. has also set out a large orchard of young apple trees, of varieties that are desired, that the former owner had failed to have planted, that go to make up all the desirable varieties.

Ben Davis, Rawles' Janet, Jonathan and Winesap—are found to be the most profitable of any kinds yet in fruit.

All the trees of the various orchards are fine,

symmetrically formed, and the bark bright and healthy—no scales, warts or disease, suckers or straggling branches, anywhere to be seen.

Dwarf Pear orchard coming into bearing—but trees are mostly young—all are as fine, thrifty trees as we ever saw. A few trees of Duchess, Seckel, Buffum, Louise Bonne de Jersey, and some others, are bearing most magnificent specimens; the greater part of the fruit has been picked off, as trees were showing too much fruit for their age. It is an established fact, that dwarf and standard pears in this portion of the State, are every year full of large, highly-colored specimens; and it has given a great impetus to planting out this fruit, with a view to profit in their growth.

Of peaches, Mr. M. has a small number of trees in bearing, but only a small quantity of fruit this season; but what specimens there are upon the old trees, are very large.

His plum trees are remarkably fine and healthy, and those old enough to bear are crowded with fruit. A few damson trees present a sight that we never saw before; a single limb, no larger than a rye straw, nine inches long, had forty-nine perfect plums upon it, all of good size. The curculio does not take enough of the damsons here to prevent trees breaking down, unless taken off by hand. We find here, also, Yellow Egg, Coe's Golden Drop, Duane's Purple, Jefferson, Washington, Green Gage, Red Gage, Columbia, and others of the best class of plums.

The cherry season was almost over when we visited this farm; yet enough was seen to fully satisfy us that there had been an immense crop of Early Richmonds, some very large specimens still remaining. Of the Heart and Biggareau classes, Mr. M. has had all he wants, and deems them of little value in this latitude.

Here we found a small vineyard in a healthy condition. He has Concord, Hartford Prolific, Clinton, Delaware, Isabella, Norton and Taylor. All the vines, except Clinton, are quite young, but are now showing a few bunches of large grapes. The Clinton very full; the Isabella is an entire failure; many of the vines have been entirely killed the past winter.

Of strawberries there are—Agriculturist, Jucunda, Triomphe de Gand, Longworth's Prolific, Early Scarlet, Russell and Wilson's Albany—the two latter have succeeded best; yet he has not been successful with this fruit, and there seems no apparent cause, unless the ground is too rich, for the foliage was remarkably large and healthy.

Raspberries, gooseberries and currants in abundance. Raspberries comprise Fastolf, Franconia and Doolittle. The two former he considers worthless, and will dig them up; the Black Cap very full of fine berries. We saw, here, the Houghton Seedling loaded to the ground with large berries. Mr. M. has tested a great many of the English varieties, and finds them worthless. We saw, also, the most gorgeous display of currants ever beheld in the West—Red Dutch, White Grape, Victoria and Versailles, had very large bunches and berries. His success in growing currants in this climate of hot suns, is, in giving them almost an entire shade.

A few trees of the Black Mulberry will yield from five to six bushels of very large, showy fruit to the tree.

Mr. Mansur has offered to sell this farm for ten thousand dollars, as his business will not allow him to reside upon it, and the care and attention it requires can scarcely be found in those who do not own the same. His law practice in the various courts, and having in past years become a political leader, representing the District in the last National Democratic Convention; being a young man of 35, and with fair prospects of high position in the future, may have decided him to part with this valuable property. May his patronage of Pomo and Flora never be less. NORTH MISSOURI.

RASPBERRIES.

COL. N. J. COLMAN: Business calling me to Brookfield, Mo., June 21st, and being detained several days, I gladly availed myself of an invitation from Mr. Thompson, of the firm of Thompson, Myers & Co., to visit their "Brookfield Nurseries." After a pleasant drive of some two miles, through a beautiful neighborhood rapidly improving and adorned with tasty houses of more than average quality for North Missouri, we arrived at the Nurseries. They have about forty acres in small fruits, shrubbery and flowers, located in the timber, on the east side of Yellow creek, and well protected on every side from the storms and winds of winter.

I do not purpose to call attention to anything at this time but their raspberries, Mr. T. evidently having Raspberry on the brain.

Until this visit, I never knew the value of the Raspberry, or how prolific a bearer it could be made, as well as the profit in the berry. But with twenty-three varieties in bearing before my eyes, all on the same soil and having the same cultivation, I had an excellent opportunity to compare kinds and judge of their respective merits.

Of Doolittle's Black Cap everybody knows, yet Mr. T. showed me a black cap, called by him the *Surprise*, which is every way a better berry on his grounds than the Doolittle: higher flavored, decidedly more juicy and refreshing, and fully 20 per cent. larger; perfectly hardy; fruit very showy, and stands out boldly to the sunlight.

The berry, however, to which I give the largest praise, and which took captive both my judgment and my fancy, is the *Minnesota*, a golden berry, very little offering for sale yet and comparatively unknown, which originated on the farm of the elder Mr. Thompson in Minnesota, whence its name. This berry was the earliest in bearing of the twenty-three varieties; of large size, high flavor, quite juicy (but not so much so as the red varieties); perfectly hardy; a prodigious bearer (Mr. T. writing me that from one bush this year, its third summer, he gathered two gallons of berries); does not sucker; and, with all its good qualities, bears its fruit of a larger and more uniform size, in clusters of from seven to ten berries, that stand out more prominent and quicker for the eye to discover than any raspberry I ever saw. I never saw the *Minnesota* elsewhere than at the Brookfield Nurseries; but in my candid judgment it is the best raspberry, and has more good qualities than any other I ever did see.

I was well pleased with the Clark; think it a splendid berry; the best red I know of; a fine grower; prolific, and the juiciest and highest-

flavored berry in the list—but as this berry is well known, I will add nothing further in regard to it.

Their other varieties include the Miami, Purple Cane, Golden Cap, Philadelphia, Ellisdale, Davison's Thornless, Pearl, Seneca, Mammoth Cluster, &c.

I have four varieties in bearing at home, and am so utterly displeased with all of them since the above-named visit, that I shall, as soon as the fruit is all picked, hoe them all up, and this fall re-set with *Surprise*, *Minnesota* and *Clark*—in my judgment the three best varieties and all totally different in color and habit. H.

[Written for Colman's Rural World.]

THE APPLE BLIGHT.

At the last meeting of the Douglas County (Kansas) Horticultural Society, this subject was up for discussion, and it being desirable to have more information, a committee was appointed with that object in view. It seems that trees in this locality are sometimes attacked with a disease (apparently in the bark), in several different ways, mostly, however, by the bark dying on the south-west side of the tree. This is by many called the "sun-scald," and supposed to be caused by the sun starting the sap in warm days in winter, and then followed by a sudden freeze, which loosens the bark from the tree. But this, undoubtedly, is an erroneous idea, for, if that was a fact, then all trees, similarly situated and of the same variety, would undoubtedly be affected in the same way, which is not the case; besides, loosening the bark does not necessarily kill the tree, unless the surface of the tree on which the bark is loosened is exposed to the action of the atmosphere and sun. A new bark will form under the old, and the tree will apparently be but little injured.

There is some complaint of late, of trees being attacked by a disease that kills the bark in a circle round the trunk, about the surface of the ground, while the tree and roots look healthy and vigorous. The opinion advanced by those that had experience, was, that it was caused by the action of the drying hot winds on the tender bark of the tree below the surface of the ground, which sometimes becomes exposed after a heavy rain which softens the ground, and the swaying of the tree with the wind, especially where they are deep rooted.

If orchardists throughout the West will send to this committee their experience with the diseases mentioned, or any other that attacks the apple tree, they will confer a favor.

The Society seemed to think that information on one point would be of great benefit to those that are intending to plant orchards—viz., What varieties are most subject, and what exempt from disease?

The committee would make further inquiry in relation to the condition of the tree at the time of attack; whether in vigorous growth; whether under cultivation or on sod; and how long after being set in orchard. It seems that as the necessity for fruit increases—in the same ratio disease and insect enemies attack it; so that it becomes us to be on the alert. It will not do to follow the old proverb to "make haste slowly"—or we will awake to find our visions of plenty of nice fruit and fine orchards to be in vain.

Communications may be sent to either member of the committee directed to Lawrence, Kansas.

N. CAMERON, J. ROSS, J. H. THURMAN,
Committee.

The Vineyard.

IN THE VINEYARD.

As the best place in which to learn the nature of the grape vine is the vineyard, we visit every point where facts may be gleaned of any value to the grower. We spent a few pleasant hours with Dr. H. Clagett, at his place a few miles from the city. Here was an excellent opportunity to form an opinion of the relations subsisting between theory and practice. The vineyard is mainly composed of Concord, with a few other varieties, and was clean and carefully kept. His system of training is, on horizontal arms, with upright bearing canes. The vines are relatively young, and the course of training just completed. This is done thoroughly and systematically. The vines are healthy, with an abundance of very fine fruit, and an evenly-developed leaf growth. The summer pinching has been carefully performed, and perhaps only too much so—but the Dr. is determined to give all a fair trial, and modify or change as conditions indicate. The present indications are, that, with such strong growers as the Concord, in such strong soil as that of this vineyard, it will lead to a laying down of the upright canes, and the adoption of more of a "fan" system. One thing is pleasing—that this or any system, will be fully tested on all its merits, and maintained or rejected accordingly.

We saw here some of the best hoeing and hoers that it has been our privilege to see.—The work was done neatly, cleanly, efficiently rapidly, and without any apparent effort.

This is a beautiful spot, with all the quiet, natural beauties of the country within easy access of the busy city; the majestic trees in all their forest pride, and the refreshing greenness of the lawn affords a sensation of coolness that is in delightful contrast with "scorching July."

Dr. C. has been long engaged in the culture of the soil, and in some special articles certainly excels. Asparagus, rhubarb and tomatoes have produced him a good income. In the culture of the pear, there has been much loss and disappointment, the standard doing quite as badly or even worse than the dwarf.

The bee is one among the crops here, but the Dr. does not make it so much of a hobby as some of the other departments.

At Vine Grove, there are many items of value to be obtained, some notice of which may be given at another time.

AMERICAN WINE PRODUCTION.

We take the following from the *Scientific American*:

America still imports nearly all her wine from abroad, while she has all the elements for home production—climate, soil, millions of acres waiting cultivation, and thousands of husbandmen willing to engage in a paying and honest industry. Our ability to produce wine-making grapes in any quantity is beyond doubt: only the profitable manner of manufacturing the wine from the grapes in competition with Europe, is, to a great many, still a doubtful question.

The cause that prevented our wine industry to rise in importance, is simply the great cost of our domestic wine before it finds a market, the cost represented in accumulated losses by im-

proper treatment, and the consequent long storing, which through the interest of capital, evaporation, waste and storerooms, swallowed up the profits. Our wines grown on richer and more virgin soils than in Europe, are richer in nitrogenous elements, therefore of stronger ground taste, which, in the usual mode, only years of storing could remove so as to give it maturity. Hence our inability to profitably produce, in the prevailing modes of manufacture, wine in large quantities, and hence the comparatively small consumption of home-made wine, which, as a general beverage, would most powerfully counteract the deplorable tendency for strong alcoholic drinks.

But this state of things should not continue. The process of wine making may and should be accelerated by judicious means, so as to mature the wine, free it from ground taste, and fit it for shipping in a few months.

Access of air happened to be considered inimical to fermenting beverages, because its contact with the surface of these beverages was observed to cause injury. It was lost sight of, that every agency may be applied properly or improperly.

Air, the source of all organism, our fast friend, supporter, and auxiliary, if properly applied, works in a short time all the benefits, which in the present mode of fermentation by air-exclusion, are obtained only uncertainly, under no control, imperfectly, and in long time. The air should be brought in contact with every particle of the fluid alike, by passing through it from below, when it will rapidly oxidize all deleterious, nitrogenous matter, and leave the purified fluid in a proper state of preservation. Ground taste and roughness is dependent on the gluten contained in the fluid; by oxidizing, elimination of the gluten, the ground taste is removed.

A liquid may be clear and bright, and still retain dissolved gluten (young wine, beer, cider,) and it is harsh and unpleasant to the taste; oxidation renders the gluten insoluble and eliminates it.

All this is most profitably and certainly performed during fermentation—the process by which the sugar is converted into alcohol; the whole fermentation is quickened; in must (or other fruit juice) below 30 per cent. sugar requires more than five days after foaming, and at a temperature above 65° to 70° Fah., to finish the fermentation by this patented air treatment. All air required is impelled through a perforated pipe at the bottom of a ferment tub for a few minutes at a time, two or three times a day.

Clarification takes place very rapidly; two to four weeks after the cessation of fermentation, the wine, cider, etc., are bright and ripe, ready for shipment, and proof against any after fermentation and other wine disease. Acidification, the great bugbear, which, by incorrect knowledge of its principles, was expected to result from access of air, is, in this manner, hardly possible, while the least experienced, as yet, has been unable to spoil the product by air treatment, but invariably improved it.

Slightly mouldy, fusty, or otherwise impaired wine (except by acetic acidification) subjected to this treatment, with addition of sugar, and at proper temperature, is restored to soundness. No disease can prevail against properly directed action of air.

By these simple means we are therefore not only able to render ourselves independent abroad for our wines, but stop the constant drain of capital for foreign wines and brandy, while we enormously increase our commonwealth by home production, amounting together to several hundred millions annually, considering the improvement in vineyard lands. Immense tracts of land, hardly suitable for any surface production, do well for vines, that root deeply into perpetual moisture, and, tolerably well attended, yield paying crops for a lifetime.

The product is always in demand and in proportion with the amount of production, the prices

less subject to fluctuation than most other products, while the general adoption of this most natural of the exhilarating beverages would be certain to prove an additional blessing by the moral improvement it is sure to work against intoxication.

The value of American wine production is too enormous to be longer neglected. To make its success sure, the growing of grapes, manufacturing of wine and dealing in the product, ought to be distinctly separate branches, like all other industries as elucidated in your journal of June 8, 1868.

R. D'HEUREUSE, Patentee of Air Treatment.

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ASSOCIATE EDS.—WM. MUIR AND C. W. MURTFELDT.

SPECIAL CONTRIBUTORS:

M. G. Kern, Francis Guiwitz, Rockwell Thompson,
A. Fendler, Carew Sanders, Mrs. E. Tupper,
O. L. Barler, E. A. Riehl, Mrs. M. T. Daviess.

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EDITOR'S TABLE.

AGRICULTURAL AND HORTICULTURAL FAIRS.

As has been our custom, we intend to publish a complete list of State and County Fairs, to be held in the fall of 1869.

Exhibitors and visitors are anxious to select their points early in the season, and hence they are on the look-out for information. Many fairs occur at the same time, and it is impossible for man to be in more than one place at a time (a well known fact).

It will be evident from the foregoing, that it is to the advantage of every association to furnish us and our readers the time (dates) and place of holding their respective fairs. Please to give the place, county and dates in full, and at the earliest moment.

THE COTTON PREMIUMS.

EDS. RURAL WORLD.—In your valuable paper of the 17th inst., page 41, I observed an error which allow me to correct, viz.: "We learn from the Secretary of the St. Louis Agricultural and Mechanical Association that some of the merchants of St. Louis have made up a purse of \$1,000, to be given in two premiums, to which the Association add \$250, for the best cotton the product of the State of Missouri."

The same ought to read as follows: The merchants of the city of St. Louis offer,

For the best bale of cotton, upland or short staple, \$500.
" " " New Orleans, or long staple, \$500.

The St. Louis Agricultural and Mechanical Association offer:

For the best bale of cotton raised in the State of Missouri, \$250

The following rules will be observed:

1. Each bale of cotton to weigh not less than 450 lbs.
2. Only cotton from the growth of 1869 will be permitted to compete.
3. Sea Island and peeler cotton is excluded from competition.
4. All entries of cotton must be made in the name of the producer.

G. O. KALE, Sec.

VERSAILLES CURRANTS.—Chas. H. Mansur, Esq., of Chillicothe, Mo., has sent us a bottle of the above variety of currants. They are large and fine.

The Mound City Mutual Life Insurance Company.

The advertisement of this Company appears in this issue. One hundred thousand dollars has been deposited in obedience to the new insurance law of the State in the hands of the Superintendent of Insurance.—This is a pledge to widows and orphans, that in case of the death of their natural protector, if insured in this Company, there they will get the amount due them. The new law of the State is admirable in this respect, and Missouri Life Insurance Companies will now stand among the best in any of the States. The officers are among our well known and best citizens, containing such names as Hon. Jas. J. O'Fallon for President, Hon. A. H. Buckner for Secretary, and Chas. G. McHatton for General Agent. We can confidently recommend this young, vigorous Company to the public, and hope it will receive a liberal patronage. No more honorable officers can be found in any Company to transact business with. Their success thus far, has been far greater than they anticipated.

CORRECTION.—In the report of the Meramec meeting in our last issue two errors occur. Instead of CANKER worm it should be APPLE worm, which makes the point quite clear. Mr. Riley, in calling attention to the misconception of terms, says: "What I did say was, that hay bands placed around apple trees were well enough as a lure for the apple worm (Carpocapsa pomonella), but that old rags placed in the crotch of trees were preferable, as the worms could be killed so much more rapidly by passing such rags through a clothes wringer." WM. MUIR.

We call the attention of our readers to the advertisement of M. D. Heltsell & Co., which will be found in the proper department. We can confidently recommend them as men of integrity, business capacity and of a highly appreciative turn of mind, as their very liberal action in the introduction of SUPER-PHOSPHATE among the farmers abundantly proves. They are the right kind of men to push business right ahead.

THE NEW BARBOCK PATENT FIRE EXTINGUISHER.—A kind of natural curiosity led us to visit the establishment where these invaluable articles are on sale. It is certainly most unique in its construction; simple, and readily available; requires no attention after it is set to work—so that all the energies can be directed to the object in view, "the extinguishing of fire."

But we conceive that there is still another valuable purpose to which it can be applied—the syringing of trees and plants. Any article can be used as a solution in the Extinguisher, with equal facility, as that specifically prepared for fire. Its great beauty lies in its vast, yet easily controlled, power, and its extreme portability. As a force power for washing trees, it may be found of the greatest value.

Kansas Agricultural College.

The annual examination of this institution took place on the 21st to the 24th of June, and closed a year of progress. The examination of the classes was conducted by the Regents and Examining Committee, to their satisfaction; and in their Report they say: "The examination furnished abundant evidence of ability and faithfulness on the part of the Professors, and of diligent application on that of the students."

While the recitation room has received its full attention, the farm has not been neglected. The appropriation for this department by the Legislature was merely nominal; so, what has been accomplished has resulted from the energy of the President and Agricultural Professor. About four hundred fruit trees, and twice that number of shade trees, have been set out—more than half during the past spring. They are in excellent condition. Prof. Hougham has planted a large quantity of seed of trees, but in most cases they have failed to germinate.

About forty acres of ground within the College enclosure, is under cultivation; mostly by sub-letting. This became necessary, as the Legislature made no appropriation for implements or teams. It has been conducted under the direction of Prof. Hougham, and various kinds of wheat, oats, &c., sown, which look finely.

At the meeting of the Board of Regents, June 21, the Land Agent reported \$100,000 in funds, proceeds of sales of lands, bearing on an average nine per cent. interest. As this fund is constantly increasing, the Institution will not need aid for its current expenses. But, as the money cannot be used for improvements, we trust the next Legislature will make an appropriation for barn, &c., and develop the farm.—Kansas Farmer.

ST. LOUIS GENERAL MARKETS.

OFFICE OF THE RURAL WORLD AND VALLEY FARMER,
St. Louis, July 19, 1869.

The week past, since our last report, has been the hottest of the year 1869 to date. From all parts of the land come reports corroborating this statement. Having been subject to only one or two showers, it has been a busy week with the farmers. Grass and oats have fallen before the sickle; and they are not in the best possible condition—for oats were lodged badly and grass had become too ripe. As far as we have been able to observe, not much No. 1 quality of hay has been secured—partly from a very common fault, that of curing hay too much, and allowing it bleach out in the swath instead of being cured in the cock. Had our hints on haying been accessible to all haymakers and followed by them, the saving to our State would have been counted by hundreds of thousands of dollars.

Corn, in sequence of the great heat and abundant moisture, has fairly jumped forward, and the earliest, except in gardens, is now tasselling out. There has also been some opportunity to cultivate, and on the whole the condition of the crop is much improved.

In the race for wealth, by speculation in grain, there has been unusual activity, every man trying to be sharper than his fellow, by securing whatever the market might offer and at rates higher than the markets will bear, based upon the idea of a disastrous harvest. Chicago has witnessed the establishment of several "Corners," and prices have been "bulled" up from ten to twenty cents above the market. As a rule, such transactions benefit a few farmers who can watch their opportunity; but when the crash comes, as it always does, prices rule lower than they otherwise would, and farmers lose, therefore it becomes them to hold on during the panic.

It will yet take some weeks before the result of the entire harvest of 1869 is fairly known.—Wheat is plenty, and the prospects of the spring wheat sections are improving. Oats will be an abundant crop, and of the heaviest kind—condition and color variable.

There is no improvement in the quality of beef cattle in this market, and the best quality of grass beeves are by no means plenty. There is more pork consumed than is good for the city at this time of the year. No. 1 mutton sheep find a ready market at good figures. We quote:

Tobacco—Inferior or common lugs, \$4@5 00; factory do., \$5 25@6 00; planter's do., \$6 25@8 00; common leaf, \$8@9 00; medium do., \$9 25@10 00; good dark do., \$10@12 00; medium bright Mo., \$12@20 00.

Hemp—Dressed, dull sale, at from \$230@255; undressed, \$90@130; choice, \$160.

Flour—Spring extras, \$6 25; xx, \$6 50; xxx, \$7@7 50; family, \$9@9 25.

Rye Flour—Inactive; nominally, \$6@6 25.

Corn Meal—\$4 60@4 65 for city.

Wheat—Spring, dull and lower. No. 2 choice \$1 20; winter, prime to low choice, \$1 30@1 35@1 40; fancy, \$1 45.

Corn—Demand active. Time to sell. Range of market according to quality and color, 90c@1 08.

Oats—Demand good; range wide; 68@83c.

Rye—Market firm; prices improved; \$1 12@1 20.

Barley—None offering.

Hay—Common, \$20; clover mixed, light pressed, \$21; loose, prime, \$26; choice, \$30.

Hides—Green salt, 10½@11c; dry salt, 19c; dry flint, 22½c.

Buckwheat—Slow sales; \$1 50.

Pork—Mess, \$33@33 50; prime mess nominal, \$26@27 00.

Wool—Ruled active and stiff; towards the close an advance of say 10c was obtained on all grades over rates obtained a week ago. Stock well cleared up. Tub-washed, 48@53c; fleece-washed, 36@42c; unwashed combing, 36@40c; medium, 30@32c; fine, 25@28c.

Butter—Unchanged. The inquiry was almost

wholly for choice, yellow dairy, for city table use—no shipping demand; common bakers' stock was saleable, but not active; fair to good-colored country store-packed, 22@24c; prime yellow, 25@26c; choice dairy do., 27@28c.

Eggs—Have ruled flat, very dull, and declining; stock increasing. We quote at 12@14c.

Potatoes—The market opened at \$1 50@2 per bbl; but in the absence of any more than a local demand and with more favorable and consequently increasing receipts by wagon, the market has ruled dull and declining, closing Friday with sales at \$1@1 10 in bulk from wagons, and packed in bbls at \$1 35@1 50.

Onions—The increased receipts, together with the limited demand, caused a dull and declining market; \$1 75@2 per bus for common, and \$2 25@2 50 for choice.

Green Apples—Inferior, unsaleable; common, dull at \$1 50@2 per bbl; good shipping and choice eating in demand and scarce at \$2 75@3 to \$4.

Dried Fruit—Very dull, and weaker on all kinds; apples, 15@15½ for Ohio, and 15½@16c for New York do; mixed peaches at 13c, and halves at 16c per lb.

Beans—Castor scarce; we quote at \$2@2 35 for inferior to prime. White very dull but firmly held; we quote trashy, inferior and common, at 50c to \$2 50—nominal; choice hand-picked, medium and navy, at \$3@3 50.

Seeds—Prime flax sells at \$2—scarce.

Feathers—We quote L. G. at 75@80c.

Cheese—Lower.

Broom Corn—We quote at \$350@400.

St. Louis Live Stock Market.

As hinted above, good quality of grass beeves for butchers are not very plenty, and would bring \$6 50. Most steers are sold at \$5, and are not worth more. Stock cattle from the South and West arrive in large droves, and change hands at about \$4 25, for fall and winter feeding.

No transaction of magnitude in hogs, and prices unchanged.

Fine fat mutton sheep sell from \$3 to \$5. We have not changed our opinion as to the profitability of raising mutton for the St. Louis market.

NEWS.

ILLINOIS ITEMS.—The most careful vineyardists report a fine prospect for grapes, while a majority of the vineyards, and especially the Catawba, are suffering very materially from mildew and rot. The crop will necessarily be short.

The Madison County Farmers' Club No. 1, hold their regular meetings on the afternoon of the first Saturday of each month. The next meeting will be held at the residence of Riley Prewitt, Esq., a short distance south of Bethalto, the regular essay being "Fruits for the Farmer."

The sound of the threshing machine is heard in every direction, preparing the new wheat crop for market. Sales of the new crop to millers and dealers to-day were at \$1.30 to \$1.35. It is plump and heavy, weighing 62 pounds to the bushel measure. We hear of some specimens weighing 64 pounds. The weather is very favorable. No rain worth mentioning has fallen in the city or its immediate vicinity since Thursday of last week, while rains a few miles north of us occur almost daily.

There is an enormous yield of early potatoes in this vicinity this season. The Early Goodrich is very plentiful and quite large, and large quantities of this variety are sent daily to Chicago. Besides this, the Early York, the Early Shaw and the Early Rose, among the new seedlings, are being cultivated. One party, seven miles north of the city, has sixteen acres of the Early Rose, the advertised price of which was one dollar per pound last spring. It is claimed that it is establishing its character as best in quality, earliest and most productive of the early varieties.—Missouri Democrat.

ILLINOIS STATE FAIR.—The Annual Fair of the Illinois State Agricultural Society takes place at Decatur, Ill., September 27th to October 2d inclusive.

It will be held on the grounds of the Macon County Agricultural Society, which are first-class in every respect, being fitted up with large exhibition halls, stalls, pens, etc., so that exhibitors will be offered every facility. The hotel and boarding-house accommodations of Decatur will be ample, and low prices have been secured by action of the Board. The Premium List—copies of which can be obtained by addressing the State Agricultural Society, Springfield, Ill.—is large, embracing all the industries of the country, and competition is open to the world.

The different railroads of the State will carry freight for exhibition free, and passengers at excursion rates.



[Written for Colman's Rural World.]

Song of the Cricket.

I'm snug and warm, in this niche in the wall,
And I'll sing all night while the dew-drops fall;
And the moon shines bright through a crack in the door,
Making a silver thread on the floor.

Chirrup, chirrup.

I wonder who sleeps in that pretty white bed?

Ah! I see on the pillow a curly head,
And a dimpled hand, and little pink toes,
Peeping out from under the clothes.

Chirrup, chirrup.

There's Mrs. Spider across the room,
Weaving away at the web in her loom;
She's very industrious I won't deny,
But I wouldn't go near her—no, not I;

Chirrup, chirrup;

For she has a very eccentric way,
Of hanging her visitors up, they say,
By a silken cord, just over her door,
That she always has ready the night before;

Chirrup, chirrup.

I see by the stars it's nearly dawn,
And then I'll be having a hop on the lawn,
Where the new-cut grass is heaped so high,
I'm very sure it touches the sky;

Chirrup, chirrup;

And then to smell it! Oh, what a treat;
The fragrance of flowers is not more sweet.
Then I'll off to the fields, for a morning sip,
With my neighbor Brown, who lives under a chip.

Chirrup, chirrup.

A pleasant and social fellow is he,
And often invites his neighbors to tea;
Then I'll brush my coat and my Imperial trim,
By a drop of dew, on the rose's limb;

Chirrup, chirrup;

And call on the ladies, first sweet Miss Jetto—
She's my second coz, and a pretty brunette,
Whilst I am yellowish-brown you see,
And the dark and the fair always best agree;

Chirrup, chirrup.

Then with Mrs. Grasshopper, I think I'll dine;
Her melons and fruits are deliciously fine,
And I'm always welcome, I very well know—
We're distant relations, she told me so;

Chirrup, chirrup.

And when the fire-fly lights his lamp,
And the evening air gets chilly and damp,
I'll back to this cozy seat under the shelf;
Ah! can't a fellow enjoy himself.

Chirrup, chirrup, chirrup.

Hemetite, Mo., July 4.

ORIOLE.

HOME.

There is one word tenderer, sweeter than all others—the most affectionate word of human utterance; the word which carries the heart around the whole circuit of love at one sweep; what is it? Reader, ask your heart. Is it husband, wife, father, mother, brother, sister, child, friend? These words are brimful of tenderness. But is there not one word that means as much as all of them; that mingles in its chalice of sweetness the richness of this whole family cluster? Yes, there is, and that word is *Home*. Ask the lone traveler, when far away in foreign wilds, for the word, the very utterance of which unseals the fountains of the heart, and he will tell you it is *Home*. Ask the brave mariner, tossed upon the deep, amid a thousand perils, where storms and billows

and thunders move him not, what word will all unmove him and make him a very child; and with quivering lips, and loving forms floating before his teary vision, he will tell you it is Home.

Who would not have a home, and live there thankful for its rich enjoyments? But to have a home is something more than to have a staying place—a place where one can eat and sleep, and say he has a right against all the world; where no invading foot may tread; where none may venture to dispute authority with its lord. Though all these pre-rogatives and privileges belong to home, they do not constitute that place and condition of the heart which is meant by the word Home in its high and proper sense. A poet has said, "Tis home where the heart is." And there is much significance in this beautiful expression. Where the heart's dear ones are, where it loves to linger and repose, where associations cluster sweet with beautiful memories, where hopes in a bright train come tripping and singing of "a good time coming," of happy days and lovely faces yet to be enjoyed, where sweetness breathes as naturally as fragrance from a wild flower—there, there is Home. 'Tis where the heart is. It is true, home is a place: but every place is not a home. And every place which is called a home, is not home. The world is full of staying places, but not so full of homes. There is many a gilded palace and seat of wealth, many a house of luxury and place of worldly comfort, that is a world-wide distance from home. People live there, and shine and smile—but are far away from home. Their hearts long and pine for their homes, even if they are but humble cottages. Where affection wears its cottage or palace, prepares the frugal meal and smooths the pillow of rest, where kind words are always spoken, and good offices always performed; where forgiving love and deep sympathy are the guardian household gods—there is Home. It is a place where rudeness would be ashamed to enter; where an unkind word would be like a clap of thunder in a clear sky; where the impulses of passion are unhallowed intruders; where impatience, reticence, coarseness, vulgarity, reproach, slander, and all kindred evils, are like hawks in a dove-cote or wolves in a sheep-fold—for where such dwell, Home does not stay—they never dwell at Home. When they are in our dwelling-places, they turn Home out. When they come in at one door, Home goes out at the other. Into the heart's home they cannot intrude.

Home, then, is Affection's constant dwelling-place.

CHARACTER.

Everything that belongs to humanity is capable of yielding hidden meanings to any one who will bring a penetrating eye and an interesting mind to the study. No man can wear that or a pair of slippers for a month or two without putting some of his individuality into his garments. "The apparel oft proclaims the man." You may gain plenty of hints concerning character by looking keenly at a man's surroundings—the quality and arrangement of his furniture, books, pictures, ornaments. Without even going into a house, you may often give a

shrewd guess at the character of the inmates by a rapid glance at the windows, garden, fences, walls, doors, &c. There is expression in the way any one shakes hands with his friends—in the style in which a smoker holds his pipe or cigar, or puffs out its fumes—in the mode in which a pedestrian wields his stick or umbrella—in the manner of taking food, playing musical instruments, or singing songs. Some secret may be let out by the attitude a man takes when he is talking in a parlor or shop, the chair he selects and the mode in which he sits upon it. The tones of the voice are full of meaning; the selection of phrases, the structure of sentences, everything that a man does, almost everything that he touches, may bear the stamp of his individuality.—*Ec.*

REMOVAL OF THE CAPITAL.

It is time that the public mind, at least of the Western, South-western and Pacific States, were definitely turned to the question of the future location of our National Capital as one demanding, not merely discussion, but speedy action. When the National Capital was located at Washington, Louisiana, including its undefined trans Mississippi territory, had not been purchased from France. The Union consisted of a narrow belt of States running along the Atlantic from Maine to Georgia. Philadelphia was very nearly the center of territory and population.—Washington, therefore, was as near as need be to the centres of both population and area, and seemed likely to become nearer as area and population increased. Our center of population has since moved westward to very near the city of Columbus, Ohio, and our center of area is, by a singular coincidence of names, at an un-built city of Columbus, on the line of the Union Pacific Railway, one hundred and twenty miles west of Omaha. Our center of population will approach our center of area quite rapidly for some years yet, but will never reach it, and probably will never go farther to the west or south than St. Louis. However great may be the growth of the country west of the Missouri, it can never sustain so dense a population as that to the east of it. The arguments founded on centrality of area and population, which led a former generation to locate the capital at Washington now prevail in favor of St. Louis.

The various sections of the great Mississippi Valley may either throw aside sectional rivalry and petty jealousies, and, with true, far-reaching sagacity, unite upon the most fit location, and secure the change, or they may waste their energies and delay or defeat the result by contending among themselves for the prize. If it is desirable, as we believe, that the capital shall not again be a mere village dependent on government pay for the daily bread of all its residents, from President down to porter and fiddler, the choice lies between four cities—Cincinnati, Chicago, Memphis and St. Louis. It is an objection to Cincinnati that the center of population has already reached or passed it, and, like Washington, it will be less central with each succeeding year. Moreover, neither the site of that city itself, nor that of its suburbs, is worthy of selection for a national capital. The broken hills around Cincinnati are romantic and beautiful for isolated country residences, but ill-adapted to the laying out of magnificent public squares and the erection of government edifices which shall be masterpieces of national architecture. Chicago rests content with her position as the commercial metropolis of the central basin drained by the lakes, the Mississippi and its tributaries. Her commercial and business interests would be injured by coming under the exclusive legislation of Congress (as would be required by the constitution if the seat of government were brought here) in a degree that not even the accession of the capital, if she could obtain it, would outweigh. Chicago prefers the wisdom of her local Solons, her Mayor and Common Council, and her rights of municipal

self-government, to the kind of legislation which would be done for her by honorable members from Florida, Rhode Island, Alaska and Texas.

The severity of our winters and springs for persons, many of whom will be residents of the sunny South, and the monotony of our location, which is the only monotonous thing we have, are reasons why Chicago may freely abandon any claim she might be expected to make to selection for the National Capital. Memphis is too southern in geographical position and too rabid in its political sentiments of secessionism and medieval Democracy to admit of the thought of her competition. Each of these objections becomes an argument in favor of St. Louis. She is, and will always remain, a great commercial city, and in addition will, ere long, become a leading manufacturing center. Official sojourners and visitors there would not be regarded as the mere prey of the resident population, as they always must be in a small town. Society would be toned and its highest standard maintained by the presence of a large and influential class of men and women not connected with the government nor dependent on the shifting wind of public favor for their daily bread. The location is central as to area and population, unsurpassed in beauty of scenery or attractions of climate, and, finally, the immediate site for the location of the public edifices afforded by the commanding plateau around the pleasant city of St. Louis, would be equal to that at Washington and unsurpassed at any other point in the country.—Instead of the Potomac, the capital would overlook the Mississippi, so appropriately expressive of the broader tide, the deeper flow, the longer current, and the resistless force our national development has attained since that early day when the tabernacle of the government was set up amidst the solitudes of the Potomac.

Last winter, a motion made in Congress by General Logan for the removal of the capital to some central point was tabled by a small majority, doubtless because of the lack of agreement among members as to where that point should be. It would be a very great local gain to Cincinnati, Chicago and Memphis, as well as to the entire country west of the Alleghenies, to remove the National Capital to St. Louis. Nor will the general sentiment of the Atlantic States give it any strenuous opposition. Let us all be content with the obvious advantage of removing the National Capital to the Mississippi Valley, and enter upon the movement with such harmony as will insure its success. If the people of the Mississippi Valley will unite on this point, it can speedily be accomplished. The expense would be comparatively trifling. The site should, of course, be given free of cost by St. Louis.—The present public buildings could be taken down at Washington, stone by stone, laden on government or other vessels, brought to St. Louis and erected again, precisely as they now stand, at a very moderate outlay. This should be done before the number of public buildings is increased, and before the several States have erected residences for their representatives, as has been proposed, at the National Capital.—*Chicago Tribune, July 5.*

REMARKS—While we do not contend that St. Louis is the State of Missouri, it nevertheless holds a very conspicuous position and important relation to the State, and everything that tends to build up St. Louis helps to build up Missouri.

Again there is so much truth in the article of the *Chicago Tribune*, that it has forced even that particular sheet so radically devoted to Chicago interest, to come out point blank and acknowledge that St. Louis has superior natural advantages not possessed by any of its competitors. All our readers, every where, will admire the frankness of its tone and the justness of its remarks.

DOMESTIC DEPARTMENT.

BREAD—HOW TO MAKE.

Once upon a time it was our fortune to eat bread at as many different tables in a month, as there are days in the same; and strange it is as true, that of the thirty tables, only two afforded us good bread. At one table it would be over-baked, and the delicious sweetness of the grain dried out; at another, under-baked and soggy. At one time the yeast would not be well kneaded through, and so the bread would be light and heavy in spots; that is, unevenly fermented. We were curious enough to watch the process which brought forth such various results, and found the modes as different as the productions. One housewife used hop yeast, "yeast cakes," or "yeast rubs," to ferment; another used "salt rising," and yet another "milk rising;" while a last used "split pea yeast," and the best of all, potato.

Some cooks stirred the sponge while it was rising, others did not touch it. At one place, where the bread was particularly and invariably heavy, we observed that it was set to rise where an open door or window flooded it with cold air; at another, it was set in the hot-air closet of a stove, or in the oven, and scalded into heaviness. But at two tables we were feasted with loaves of snowy whiteness, delicious sweetness, and tender and creamy as perfect wheat bread always is.

To be sure, it was only a slice of bread, three times a day, that lay heavy upon our—conscience; but in thirty days the slices made a load we remember with dyspeptic affection to the present time, and herewith relieve our mind of the matter.

Good bread requires good flour, good kneading, and good baking. The quantity of water taken up by flour varies according to the quality of the flour.—Southern or hard wheat takes up more than Northern or soft wheat; that grown on high more than that grown on low lands; and that grown in dry more than that grown in wet seasons. The hard, or red, contains more gluten; the soft, or white, more starch; and gluten retains the carbonic acid gas, thereby raising the bread; so, the red wheat is more profitable to the baker, for pecuniary reasons.

The best flour takes up about forty-five per cent. of its weight of water; common flour about thirty-five per cent., and the ordinary quality about forty per cent.; or, the more common the rule is, one quart of wetting for about five quarts of flour—five quarts of flour making two loaves, of three-and-a-half pounds each. Grain should be well cleaned and fresh ground, to have rich, sweet bread. If for Graham bread (which is the best bread ever made), the stones should be sharp enough to crack or cut the wheat, and not mash it, or it will not make light bread. All flour should be kept in a dry place. Bread may be fermented by use of yeast; raised by means of acids or alkalies; or unleavened—baked without rising of any kind. We consider alkali bread pernicious, because the acid and alkali are rarely properly combined. Fermenting is a process of decomposition, which destroys certain proximate elements of bread; and those who use yeast ought to know how to injure their bread as little as possible in rising.

This article is too short to describe all the chemical changes, and we will only say there are several stages of fermentation; the first, called panary, decomposes the sugar and recombines its elements, producing alcohol and carbonic acid gas. In this stage, bread should be put to bake; if it is not, the acetic fermentation takes place, and the cook says her bread is sour. During baking, and in a short time afterwards, the alcohol will be dissipated, and the carbonic acid gas being retained by the gluten, puffs up the dough and then escapes, leaving the holes we see in light loaves. To wrap bread in folds of cloth to soften the crust, prevents the escape of the gas and alcohol, and renders the bread more difficult of digestion. A wet brush passed over the loaves before putting them in the oven moderates the heat on the top of the loaves, and gives them a shining appearance, and softens the crust. A quick oven is one that is too hot to count over twenty moderately while holding the hand in it; a slow oven allows counting thirty. A heat between the two is best for bread. Three-quarters of an hour will bake small loaves; and it may be remembered that the dietetic nature and digestibility of bread begin to deteriorate the moment it is fairly cooked. Too much yeast, if hops, makes bread bitter; too little makes it heavy; yeast too stale will make it heavy and sour, dark colored and clammy; and soda can never be added to yeast bread without injury to it.

We prefer potato yeast, made after the receipt for it in a late number of the "Kansas Farmer." It will not keep so long as hop yeast, but rises quicker, and does not give the harsh, sharp taste to bread that hop yeast will, if not well managed. A good yeast is made

by mashing six boiled potatoes with a half teacupful of flour; put it through a colander, and add hot water till it becomes a batter. When blood-warm, stir in a teacupful of yeast; then cork, and keep it cool.—While rising, the dough should be kept at summer temperature, 60° Fahrenheit.

Corn meal contains but little gluten, and therefore will not make good, light, fermented bread, unless mixed with the meal or flour of rye or wheat.

Good bread is the perfection of cookery, and a good bread-maker is almost invariably a good house and home-keeper.—[Kansas Farmer.

NOTHING TO DO.

"Nothing to do!" in this world of ours,
Where weeds spring up with the fairest flowers,
Where smiles have only a fitful play,
Where hearts are breaking every day!

"Nothing to do!" thou Christian soul,
Wrapping thee round in thy selfish stole:
Off with the garments of sloth and sin,
Christ thy Lord, hath a kingdom to win.

"Nothing to do!" There are prayers to lay
On the altar of incense, day by day;
There are foes to meet within and without:
There is error to conquer, strong and stout.

"Nothing to do!" There are minds to teach
The simplest forms of Christian speech;
There are hearts to lure, with loving wile,
From the grimmest haunts of Sin's defile.

"Nothing to do!" There are lambs to feed,
The precious hope of the Church's need;
Strength to be borne to the weak and faint,
Vigils to keep with the doubting saint.

"Nothing to do!" and thy Saviour said
"Follow thou Me, in the path I tread."
Lord, lend Thy help the journey through,
Lest, faint, we cry, "So much to do!"
—[Hymns of the Higher Life.

Dr. Holland's Switzerland Letters Reviewed.

It will be remembered by many of our readers that Dr. Holland, who is now in Europe, wrote a gloomy account of drunkenness in Switzerland, which attracted the more attention from the fact that the Doctor had previously entertained liberal views on the use of stimulants. But his remarks about Switzerland, opposed as they were to the written experience of most travelers, have called forth the following sharp review by Prof. E. P. Evans, of the Michigan University, with which that writer winds up a series of articles on the grape cure in the *Herald of Health*. He says:

"The statements recently made by Dr. Holland as regards the tendency of the people to drunkenness, have no foundation in fact. We have spent more months in Lausanne and Vevey than Dr. Holland has weeks, and have mingled freely with all classes of society, but have failed to discover the 'boozy set' hanging around the multitudinous cafes' which he alludes to. A recent letter from an intelligent observer in Vevey, effectually pricks the bubble which Dr. Holland has taken so much pains to inflate, and shows the kind of wind that is in it. 'It is absurd,' says the writer, 'to say that there is as much intemperance in the vine-growing regions of Europe as in England, Scotland or America. The people of those countries are constitutionally more gay and merry than the descendants of the Puritans, and more demonstrative in their conduct. I suppose that every time Dr. Holland sees a Swiss laughing, singing, gesticulating or capering about, he sets him down as drunk, for the same reason that he characterizes as all sorts of insane jabber the foreign languages which he only very imperfectly understands.' Dr. Holland's assertions belong to that class of hasty generalizations which newspaper correspondents are extremely prone to make. A rather amusing specimen of the same kind is the conclusion to which he has arrived after traveling on the cars all the way from Geneva to Lausanne (a two hours' ride) viz.: that the picturesque costumes of the peasantry have disappeared from Switzerland. A short tour in Valais or the Vernese Highlands would have

shown him his mistake. His statements on the subject of wine drinking, and on the existence of costumes are of equal worth. If it were not irrelevant, we might enlarge upon this topic and show that in Burgundy, where the whole country is devoted to the grape, drunkenness is rarely seen; wife-beating, the disgrace of working communities in England, is wholly unknown, and the licentiousness of many English, Scotch and American manufacturing towns (not excepting Springfield, Mass.) is unheard of. The attempt to prove that the cultivation of the grape corrupts and demoralizes the inhabitants of a country, is the sheerest nonsense."

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To shoot close and kill 60 yards. Price, \$2.50. **Wanted**—Army Guns and Revolvers. Send stamp for price list Rifles, Shot Guns, Revolvers, to **JOHN-STON'S GUN WORKS, Pittsburgh, Pa.**

\$9 A DAY for all. Address, **A. J. FULLAM, N. Y.**

PUBLIC SALE OF Breeding Stock

At HARRISTOWN, Macon County, Ills.,

ON WEDNESDAY, AUGUST 4th, 1869.

The Catalogue embraces

40 PURE BRED SHORT HORNS,

22 of the Cows and Heifers bred to fine Bulls. In the list of Bulls, is "Sweepstakes" 6230, a five year old bull, that has taken more prize money than any bull now in the United States.

40 Pure Bred Southdown Sheep.

30 Pure Bred Berkshire Hogs.

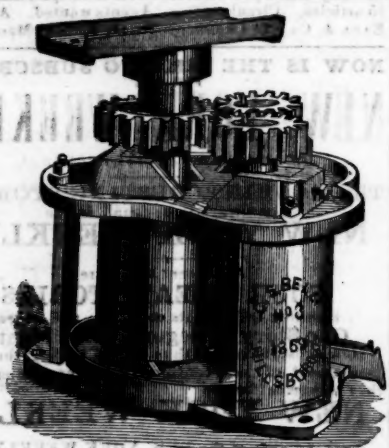
2 Thorough-bred Young Stallions.

And other well-bred COLTS and FILLIES.

Sale Positive, and no by-bidding. Send for Catalogue. Terms, 4 months. Address,

J. H. PICKRELL,

July 17-21 HARRISTOWN, MACON CO., ILLINOIS.



CANE MILLS AND EVAPORATORS.

THE LARGEST STOCK IN THE COUNTRY

Send for Circulars.

SEMPLER, BIRGE & CO.,

DEALERS IN

AGRICULTURAL IMPLEMENTS AND
MACHINERY,

ST. LOUIS, MO.

July 17-21

WANTED, AGENTS to canvas for the
American Chopping Machine Co.—
The best opening ever offered to
Agents for making money. For Cir-
culars, giving cut of Machine, terms, and full par-
ticulars, call on, or address, at once
D. A. NEWTON & Co., 126 Washington St., Chicago,
Illinois. July 3-4

TAPPAHANNOCK WHEAT.

Those who have not yet obtained seed of this superior, early, white wheat, can have an opportunity of doing so now. My crop this year is extra fine, and entirely free from all foreign seed. I have allowed no other wheat to grow on my farm for six years, and have a machine of my own that threshes no other wheat. I intend to thresh immediately, and those who wish to obtain it of me had better send in their orders at once. Orders will be filled in the order received. My price this year is \$2 per bushel, nett.—Cash must accompany orders, or by express C. O. D. Sacks furnished at cost when desired.

July 17-3m T. R. ALLEN, Alenton, Mo.

A CARD.

A record of the watches produced at the Waltham Manufactory may be not improperly prefaced with a brief mention of the considerations which induce us to press them upon the attention of intelligent watch buyers.

Fifteen years' successful experience justifies us in claiming for the Waltham Watches peculiarities of excellence which place them above all foreign rivalry. The system which governs their construction is their most obvious source of merit. The substitution of machinery for hand labor has been followed not only by greater simplicity, but by a precision in detail, and accuracy and uniformity in their time-keeping qualities, which by the old methods of manufacture are unattainable.

The application of machinery to watch-making has in fact, wrought a revolution in the main features of the business. In conjunction with enlarged power of production, it has enabled us to secure the smoothness and certainty of movement which proceed from the perfect adaptation of every piece to its place. Instead of a feeble, sluggish, variable action, the balance, even under the pressure of the lightest main-spring, vibrates with a wide and free motion. The several grades of watches have more than a general resemblance each to its pattern; they are perfect in their uniformity, and may be bought and sold with entire confidence as to the qualities we assign to them.

These general claims to superiority are no longer contested. An English watchmaker, in a recent lecture before the Horological Institute of London, describing the result of two months' close observation at the various manufactories in the United States, remarks in reference to Waltham: "On leaving the factory, I felt that the manufacture of watches on the old plan was gone." Other foreign makers, some of them eminent, have publicly borne the same testimony. They admit the results aimed at in Europe by slow and costly processes are here realized with greater certainty, with an almost absolute uniformity, and at a cost which more than compensates for the difference between manual labor in the Old World and the New.

But we assert for the Waltham Watches more than a general superiority. Their advantages, in respect of quality and price, over English and Swiss watches, are not more marked than are their advantages over the products of other American manufactories. These are positive in their character, and are the natural consequences of the precedence we acquired in the trade, and the proportions to which our manufactory has attained. No industrial law is better established than that which cheapens the cost of an article in proportion to the magnitude of its production. The extent of our establishment—the combination of skilled labor on an extensive scale, with machinery perfect and ample—enables us to offer watches at lower rates than those of any other manufacturer. The aggregate of profit is the end kept in view—not the profit on any single watch. And, acting on this principle, with reduced cost of production and an ever-widening demand, our watches are offered at prices considerably below the watches of other American makers, comparing quality with quality. Our annual manufacture is double that of all other makers in this country combined, and much larger than the entire manufacture of England.

The conditions which make this cheapness possible are also favorable to the excellence of our work. Our artisans long ago ceased to be novices. Time and effort, under a superintendence which combines the subtleties of science with the strength of practical skill, have produced a body of artisans whose efficiency is for the time pre-eminent. We have the best workers in every department that are available—workers whose expertness and experience would be alone sufficient to secure for Waltham its high position. Among other tributary causes, may be stated the readiness with which each succeeding invention and improvement has been tested, and if approved, adopted. We are always ready to examine whatever experience, or art, or skill may suggest; but we adopt nothing until experiments have demonstrated its excellence. In pursuance of this rule, we have brought to our aid all the mechanical improvements and valuable inventions of the last fifteen years, whether home or foreign in their origin. We have thus acquired the exclusive possession of the best and most valuable improvements now known in connection with watch-making, and secured for the Waltham factory a force and completeness not shared by any similar establishments in the world.

These constant efforts to perfect in all ways, and by all means, both the machinery of the factory and the construction of our watches, have placed within our means the production of a greater variety in grade and finish than other American makers have attempted. In the manufacture of very fine watches we have no competitor in the United States and only very few in Europe.

The various styles of these watches have undergone the severest trials in the service of Railway Engineers, Conductors and Expressmen, the most exacting class of watch wearers, and the presence of over 400,000 Waltham Watches in the pockets of the people is the best proof of the public approval, and must be accepted as conclusive of their superiority by discriminating Watch-buyers, especially so since the important matter of price is also very greatly in favor, being at least twenty-five per cent. cheaper, quality for quality than those made elsewhere in the United States.

An illustrated description of the Watches made by the American Watch Company of Waltham, will be sent to any address on application.

In addition to a description of the Watches, the pamphlet contains much other useful information to watch-buyers.

AS THESE WATCHES ARE FOR SALE BY

ALL RESPECTABLE JEWELLERS, THE

COMPANY DECLINE ALL OR-

DEERS FOR SINGLE

WATCHES.

For facts and all other information, address

ROBBINS & APPLETON,

General Agents,

182 BROADWAY, N. Y.

July 19-6t

THE GREAT BENEFACTOR.



The Home Washing Machine!

WARRANTED THE BEST WASHER EXTANT, and the only machine that washes thoroughly all kinds of fabric, from the finest laces to the coarsest bedding, without injury. Will wash 500 collars and 50 shirts in one hour. Any one purchasing a machine may return the same and money will be refunded if it does not work as represented. State and County Agents desired. Address, HOME MANUFACTURING COMPANY, 818 North Fourth St., and 821 Broadway, St. Louis, Mo.

SAMUEL CUPPLES, President, [Feb-14] JOS. B. WILDE, Secretary.

WILLIAM MILLER, JR.,

Importer and Breeder of

COTSWOLD SHEEP.

Post-office address, ATHA, Canada West. feb13-1y

TURNIP SEED BY MAIL.

J. M. THORBURN & CO.,
15 John Street, New York,

OFFER FRESH AND GENUINE

Ruta Raga, Russia or Swedish Turnip, American grown, and particularly choice stock, 75 cts. $\frac{3}{4}$ lb
Large Yellow French, very superior, large and of excellent feeding properties; can be sown a month later than Ruta Raga, \$1 $\frac{1}{2}$ lb
Red Top Strap Leaf; this old established variety is the best for late sowing, 75 cts. $\frac{3}{4}$ lb

ALSO,

Early Dutch,	\$1 $\frac{3}{4}$ lb
German Teltow,	\$2 $\frac{3}{4}$ lb
Cow Horn,	\$1 $\frac{3}{4}$ lb
White Norfolk,	75 cts. $\frac{3}{4}$ lb
White Strap Leaf Flat,	\$1 $\frac{3}{4}$ lb
White Flat or Globe,	75 cts. $\frac{3}{4}$ lb
Long White Tankard,	75 cts. $\frac{3}{4}$ lb
Yellow Stone,	\$1 $\frac{3}{4}$ lb
Yellow Aberdeen,	75 cts. $\frac{3}{4}$ lb
White Ruta Raga,	75 cts. $\frac{3}{4}$ lb

AND OTHERS TOO NUMEROUS TO MENTION.

We also offer for late summer sowing:

Corn Salad,	15 cts. $\frac{3}{4}$ oz.	\$1.25 $\frac{3}{4}$ lb
Green Curled Endive,	30 cts. $\frac{3}{4}$ oz.	\$3.00 $\frac{3}{4}$ lb
Green Curled Scotch Kale,	15 cts. $\frac{3}{4}$ oz.	\$1.50 $\frac{3}{4}$ lb
Brown Dutch and Hardy		
Green Lettuce,	30 cts. $\frac{3}{4}$ oz.	\$3.00 $\frac{3}{4}$ lb
Scarlet Chinese Winter		
Radish,	20 cts. $\frac{3}{4}$ oz.	\$2.00 $\frac{3}{4}$ lb
Round & Prickly Spinach,	10 cts. $\frac{3}{4}$ oz.	60 cts. $\frac{3}{4}$ lb

If ordered by mail, add 8 cents per lb for postage. Catalogues on application.

J. M. THORBURN & CO.;

feb19-7t 15 John Street, New York.

Hedge Plants Grown in Missouri.

93 Bushels Osage Orange Seed planted.

I will ship, freight prepaid, to any railroad station in North Missouri, GOOD HEDGE PLANTS at \$2.50 per 1000, next fall—or \$3 next spring. Printed directions furnished. CHAS. PATTERSON, may22-6m Kirksville, Adair Co., Mo.

For Sale, a Thoroughbred Young AYRSHIRE BULL, price \$200. For pedigree and particulars, apply to or address, WM. MUIR, at the office of Colman's Rural World, St. Louis, Mo.

THE HOWE
MACHINE COMPANY'S
Sewing Machines

FOR
FAMILIES AND MANUFACTURERS.

THE GREAT PRIZE,

THE ONLY
CROSS OF THE LEGION OF HONOR
AND GOLD MEDAL,

AWARDED TO AMERICAN SEWING MACHINES at the Paris Exposition of 1867, OVER EIGHTY-TWO COMPETITORS, as per Imperial Decree, published in the "Moniteur Universel" (Official Journal of the French Empire), Tuesday, 2d July, 1867.

The Lock Stitch invented by MR. HOWE, and made on this Machine, is the most popular and durable; is alike on both sides, and will NEITHER RIP NOR RAVEL, and all Sewing Machines are subject to the principle invented by him.

A Machine was needed possessing SIMPLICITY and DURABILITY, and adapted to a great range of work; one easily understood and comprehended by all. To produce such a Machine has been the study of ELIAS HOWE, JR., who gave to the world THE FIRST SEWING MACHINE, more than twenty years ago; and now we offer his last production—a Machine embracing all essential qualities, and pronounced

THE BEST MACHINE IN THE WORLD.

Persons from a distance can order a Machine with perfect confidence of being able to operate it in a few hours successfully, by the aid of the printed instructions that accompany each Machine. Drafts or current funds must accompany the order. Machines may be ordered by Express, also to collect on delivery, if the purchaser prefers. We advise shipping by Express, as the most convenient and expeditious way. The demand for this

New and Improved Machine

Is unprecedented in the history of Sewing Machines.

In all the principal towns where Agencies are not already established, we desire responsible and energetic parties as Agents. Many places are of sufficient importance to warrant persons in making it their exclusive business.

Send for Circular and Samples.

COCHRANE & BROWN,

General Agents

For Missouri, Kansas, Arkansas, Nebraska, and the Territories of Colorado and Utah.

No. 425 North Fifth Street, cor. St. Charles St., ST. LOUIS, MO. may22-3m

WANTED--AGENTS--\$75 to \$200 per month, everywhere, male and female, to introduce the GENUINE IMPROVED COMMON SENSE FAMILY SEWING MACHINE. This Machine will stitch, hem, fell, tuck, quilt, cord, bind, braid and embroider in a most superior manner. Price only \$18. Fully warranted for five years. We will pay \$1000 for any machine that will sew a stronger, more beautiful, or more elastic seam than ours. It makes the "Elastic Lock Stitch." Every second stitch can be cut, and still the cloth cannot be pulled apart without tearing it. We pay Agents from \$75 to \$200 per month and expenses, or a commission from which twice that amount can be made. Address, SECOMB & CO., PITTSBURG, PA., BOSTON, MASS., or ST. LOUIS, MO. CAUTION—Do not be imposed upon by other parties palming off worthless cast-iron machines, under the same name or otherwise. Ours is the only genuine and really practical cheap machine manufactured. may15-13t

THOROUGH-BRED & TROTTER HORSES

Short-Horn and Alderney Cattle,

And South-Down Sheep,

FOR SALE AT

Woodburn Farm, Spring Station, Woodford Co. Ky. feb27-1y] A. J. ALEXANDER.

FARM FOR SALE,

In Franklin County Missouri. It consists of 336 acres, 70 under cultivation; about 300 fruit trees, of peach, apple and cherry, bearing. It is well adapted to fruit raising, being in a high, healthy location, 8 miles south of Calvary Station, on the S. W. Branch of the P. R. R., 40 miles from St. Louis. There is a comfortable house, stables, &c. Could be divided so as to make 3 good farms. There is a post-office and store $\frac{1}{2}$ mile from it. I will take \$3,000 for it, one-half down the rest in one and two years. I will make a liberal discount for all cash. Address, Thos. Robinson, Horine Station, I.M. R. R. Mo. June5-3m

BERKSHIRE PIGS.

A few choice Berkshire pigs, three months old, for sale at \$2 per pair. Also a few pair of Berkshire and Chester Cross, Very fine pigs, at \$15 per pair. Address, E. A. RIEHL & BRO., Alton, Illinois.

Fairbank's Standard
SCALES,

OF ALL SIZES.

Fairbanks, Greenleaf & Co., aug15-1y. 209 Market Street, St. Louis, Mo.

CRESYLIC & CARBOLIC
COMPOUNDS.

Cresylic Plant Protector,

For the protection of trees, plants, etc., from insects. In cans, 1, 3 and 5 pounds.

Cresylic Sheep Dip:

A safe and certain cure for scab. Will also destroy vermin on sheep; increase the quantity and improve the quality of the wool.

Cresylic Ointment

Destroys screw worm, cures foot-rot, and is a healing wash for galls and sores.

Carbolic Disinfecting Soap

Will destroy vermin on animals and protect them from flies, etc.

Cresylic Medicated Toilet Soap

Heals chapped hands, cutaneous eruptions, piles, etc.

Cresylic Salt Rheum Soap

Cures salt rheum and similar diseases.

Cresylic Laundry Soap,

For washing and disinfecting clothing, bedding, rooms, etc.

Also, ROOFING PITCH and FELT, CARBOLIC ACID, Etc.

Send for circulars and price lists to ST. LOUIS COAL TAR CO., 324 North 3d St., Saint Louis, Mo. jan30-6m

WANTED--AGENTS--TO SELL THE
AMERICAN KNITTING MACHINE.

Price \$25. The simplest, cheapest and best Knitting Machine ever invented. Will knit 20,000 stitches per minute. Liberal inducements to Agents. Address AMERICAN KNITTING MACHINE CO., Boston, Mass., or St. Louis, Mo. may15-13t

Fall 1869. - - - Spring, 1870.

Western Orchards from Western Nurseries.
PIKE COUNTY NURSERIES,
Permanently established and reliable.

STARK, BARNETT & CO., Proprietors,

LOUISIANA, MISSOURI,

Offer for sale the following fall and spring, the largest and best assortment of Fruit Trees, Grape Vines, Small Fruits, Hedge Plants, &c., ever offered to Western planters. Our life-long experience in the Nursery Business and Fruit Growing combined, enable us to understand the wants of the Western Fruit Grower. We respectfully invite all who wish to purchase NURSERY STOCK, in large or small quantities to correspond with us; or if practicable call and examine our stock and prices. Our prices will be as low as any other first-class, reliable Nursery. Special inducements to Nurserymen and large dealers, and liberal terms to reliable Local Agents, who propose to deal with their neighbors. All stock warranted to be as represented. Shipping facilities unsurpassed. Information given and Catalogues mailed free to all applicants. Address,

STARK, BARNETT & CO.,
Louisiana, Pike Co., Mo.

July17-1y

THE LIFE ASSOCIATION OF AMERICA.

The Special attention of FARMERS, STOCK RAISERS, FRUIT GROWERS, AND AGRICULTURISTS GENERALLY,

Is invited to the following statement of facts:

The LIFE ASSOCIATION OF AMERICA, was established one year ago, its design being to change "the current of Life Insurance from the East to the West and South, so as to stop the ruinous drain upon the finances of those sections, which is caused at present by the extensive operations of Eastern Life Insurance Companies."

These Eastern Companies now hold 200,000,000 of DOLLARS of Money, for which the people of the West and South have nothing but their promises to pay at some uncertain time in the distant future. Shall the fruits of our industrious toil, in the FIELD, at the ANVIL, in the COUNTING HOUSE, in the MILL, in the WORKSHOP—in short, in all the departments of HOME INDUSTRY, be poured into the lap of Eastern Capitalists whose interests are so foreign to our own? Should we continue to do this, and keep up the Policies of Eastern Companies now in force, we shall have paid them more than enough to

LIQUIDATE THE ENTIRE PUBLIC DEBT!!

The plan of this Association is to establish departments in each State, controlled by leading citizens through whom the money paid for Life Insurance is invested in the locality where it is realized, when undoubted Real Estate security can be obtained. Farmers can thus effect loans which will be PERMANENT, thus relieving them from the embarrassments entailed by short crops, and avoid the annoyance of sales under deeds of trust—calamities which have often destroyed many a worthy, hardworking farmer.

With heavy taxes and high wages for labor which is uncertain, precarious, difficult to get and poor at that, our Farmers cannot afford to pay these Eastern Companies to handle their money and do their insuring, which the Life Association of America is able to do and at LESS RATES.

ENCOURAGE HOME ENTERPRISE!

Charity begins at home. Our agriculturists require all their surplus to purchase farming machinery, improve lands, enlarge their estates and improve their condition generally. Can they do it by paying millions of their earnings every year to foreign capitalists?

In order to develop our lands and utilize our resources, we must have the handling of the fruits of our genius and industry ourselves.

The success of the Life Association of America is unparalleled. It is in operation less than a year, and its present annual income about one million of dollars. It is purely mutual. All its policies are non-forfeiting. It insures on all the popular plans practiced by sound companies, and because of the high rates of interest it gets on its investments, its rates of premium are lower, and its dividends will be much larger than those of other companies. Build up Home Institutions.

LIFE ASSOCIATION OF AMERICA.

Losses by Death of Policy Holders, : : \$20,000.00
See receipts below:

LOUISIANA, MO., May 5, 1869.
Received of the LIFE ASSOCIATION OF AMERICA, Ten Thousand Dollars (\$10,000) in full for Policy No. 504, issued to E. B. Rule, for the benefit of Margaret J. Rule and heirs of the body of E. B. Rule.
Signed, MARGARET J. RULE, widow of E. B. Rule, deceased.
Signed, J. B. BURBRIDGE, } Guardians of Children
J. T. RULE, } of E. B. Rule, deceased.

OMAHA, NEB., May 1, 1869.
Received of the LIFE ASSOCIATION OF AMERICA, the sum of Ten Thousand Dollars (\$10,000), being in full for loss under Policy No. 410 of the Life Association of America, on the life of Samuel A. Megeath.
Signed, JAS. G. MEGEATH, } Adm'ts of S. A.
ADDISON COCHRAN, } Megeath, dec'd.

NOTE—It is well to add that the INTEREST MONEY alone has been sufficient to pay these losses, and leave a handsome surplus besides. This is mentioned merely as an evidence of our success during the FIRST ELEVEN MONTHS. Old Companies use this fact as an ARGUMENT TO PROVE THEIR SOUNDNESS, AFTER DOING BUSINESS 15 or 20 years.

Why Farmers should Insure in this Association.

Because as Producers of Capital they are entitled to the use of the results of their labors—a right secured to them by the plan and system of this Institution.

FARMERS SHOULD, ABOVE ALL OTHERS, INSURE THEIR LIVES, AND PROVIDE for future contingencies. The litigations incident to a new country, by which heirs and administrators become involved in law suits, touching boundaries, titles, &c., not unfrequently exhaust the fruits of the labor of a long life in their expensive cost, and drive widows and orphans from their cherished homesteads, around which so many fond memories cluster. A Policy of Insurance covers every pecuniary contingency, and offers security and provision for the fatherless and the widow.

Farmers should insure, because their opportunities for making safe investments are few, on account of their seclusion and limited intercourse with financial circles. Life Insurance presents a safe and profitable investment, considering it as a FINANCIAL measure, besides providing for the future pecuniary welfare of themselves and their families.

FARMERS and others visiting SAINT LOUIS, are invited to call at our office,

No. 307 North Fifth Street.

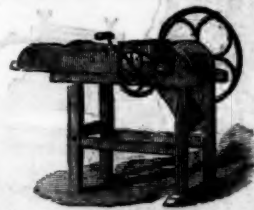
Manuals and Circulars giving complete statements of details, rate tables, &c., furnished by applying at this office.

JOHN J. ROE, PRESIDENT.

J. P. THOMPSON, SECRETARY.

C. R. GRIFFING, General Manager for the State of Missouri.

BURDICK'S Celebrated National HAY & FODDER CUTTER.



Farmers, stock-growers and livery-stable men, who have never seen the BURDICK CUTTER, should not fail to examine. It is entirely different in its construction from any other machine in use; and is so far superior to all others, that no one who tries them, fails to appreciate their excellence. They have been adopted almost universally by the livery-stable, railroad, and dairy men, of the East, and several thousand were sold in the West last season, and not one failed to give satisfaction.

This cutter has but one knife. This is heavy, of the finest steel, and will cut heavy stalks or sticks if desired, and the toughest or finest hay, with little power.

Among various improvements are, the arrangement for giving different lengths of cut as desired; a device for preventing breakage or accident, which is of great value; an improved self-feed which adapts the machine to various quantities and qualities of feed; with many other valuable points which must be seen to be appreciated.

It is the best cutter in use, of elegant workmanship, great power, light to run, and for durability, is unequalled.

THIS MACHINE is sold exclusively by regularly appointed Agents throughout the Country.

For the purpose of giving persons an opportunity of TRYING THE MACHINES in parts of the country where none are sold, we will allow a discount of TEN PER CENT. from the accompanying factory prices, for the first order coming from any location where the Cutter is not represented.

Orders should be accompanied by the money. ALL MACHINES WARRANTED.

—PRICE LIST.—

No.	Length of Knife.	Will cut per hour.	Price.
1.	6 inches.	300 lbs.	\$22.00
2.	7 1/2 "	400 "	27.00
3.	9 "	600 "	32.00
4.	10 "	800 "	40.00
4.	10 "	1,500 "	45.00
6.	11 "	2,000 "	55.00

For Hand or Power with double Knife and band wheel!

For Sale by SEMPLE, BIRGE & Co.,
Agricultural Implement Dealers,
13 South Main Street, ST. LOUIS, MO.

Colman's Rural World,

DEVOTED TO

Agriculture, Horticulture, Rural Economy, &c., &c.

Published Weekly, at 612 North Fifth Street, St. Louis, Missouri.

In a neat quarto form of 16 pages, on fine book paper, forming two volumes a year of 416 pages each, beginning with January and July. TERMS—Two DOLLARS a year in advance. For a club of 5 NEW subscribers and \$10, a copy Free one year. Or for a club of 8 OLD subscribers and \$16, a copy Free one year.

ADVERTISING RATES—25 cents per line each insertion, inside pages; 35 cents per line last page. Double price for unusual display. Sixty cents per line for special notices. Nothing inserted for less than One Dollar.

The circulation of COLMAN'S RURAL WORLD is now, by far, the largest of any paper of its class published in the Mississippi Valley (having been published for 21 years past in St. Louis), and offers to Stock Breeders, Nurserymen, Seedsmen, Florists and Implement Dealers and Manufacturers, the very best medium for reaching the live, wide-awake, enterprising classes interested in such articles as are usually advertised.